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ABSTRACT

This sequence of courses is designed to teach students how to use computers as a business and personal tool through the use of application software. Various jobs in computer-related fields are examined and employability skills, proper work habits, and leadership skills are taught. The major part of the guide consists of 18 units of instruction: (1) "Proper Care of Equipment and Materials"; (2) "Basic Functions of a Computer System"; (3) "Current Issues and Careers"; (4) "Leadership Skills"; (5) "Database Management"; (6) "Spreadsheet"; (7) "Graphics"; (8) "Word Processing"; (9) "Integrated Software"; (10) "Telecommunications"; (11) "Utilities"; (12) "Project Management"; (13) "Management Support"; (14) "Desktop Publishing"; (15) "Presentation Graphics"; (16) "Evaluating Software"; (17) "Appropriate Work Habits"; and (18) "Seeking Employment." These units are written for courses to be offered during a 2-year period. Course outlines in the preface of the document suggest what should be taught in levels one and two. Each unit includes a table of contents, competency objectives, student activities, handouts, transparency masters, evaluation measures, a key to test items, and references. (DB)

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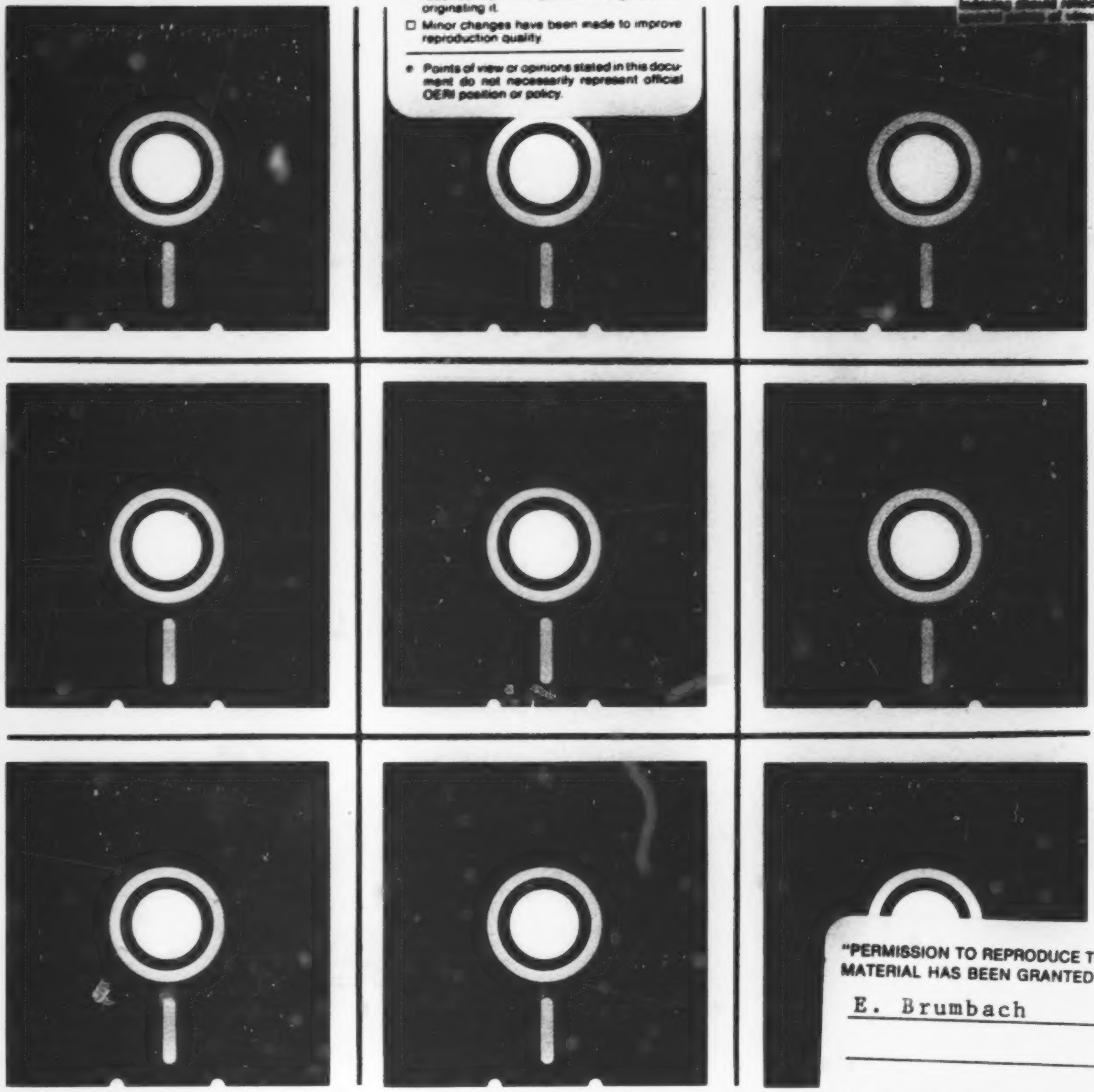

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COMPUTER APPLICATIONS I & II

Business and Office Education • Division of Vocational Education Services
North Carolina Department of Public Instruction • Bob Etheridge, State Superintendent

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FOREWORD

A revolution in communications and information technology has made the computer a basic tool for acquiring knowledge, organizing sytems, and solving problems. This revolution is having a profound influence on learning and the world of work.

Most workers either work directly with computers or have their work influenced by computers in some significant way. This influence requires that an informed workforce understand computer applications and be able to use up-to-date software. Competence in computer use is a basic skill complementary to others, such as reading, writing, mathematics, and reasoning.

A major challenge to business education is the development of curriculum that reflects rapidly changing technology that prepares students for the world of work. This curriculum guide was developed to help meet that challenge and is to be used as a resource guide in planning and teaching Computer Applications I and II.

Implementation of these two courses requires that classrooms be equipped with state-of-the-art computer equipment and an adequate selection of state-of-the-art business applications software. Minimum equipment and supplies standards are included in this guide.

It is also important to have adequately trained teachers. Hardware and software change very rapidly; therefore, teachers will be required to update their professional knowledge through local and state in-service and professional organization workshops, post-secondary course offerings, and professional publications.

Bob Etheridge

Bob Etheridge, State Superintendent

Clifton B. Belcher

Clifton B. Belcher, Director
Division of Vocational Education Services

ACKNOWLEDGEMENTS

This course guide for Computer Applications I and II was developed with the cooperation of several individuals. We appreciate the efforts of those involved in the project. The following educators developed this course guide.

Sylvia Beck	Smith High School Greensboro City Schools
Joyce Cotten	Lee County Senior High School Lee County Schools
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Ann Powell	Washington High School Washington City Schools
Claudia Skinner	Glenn High School Winston-Salem/Forsyth Schools

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Leigh Staton	Information Center Analyst
Kathy Moorhead	Information Center Instructor Teacher on Loan Charlotte/Mecklenburg Schools

We are also grateful to those computer applications teachers who responded to the survey used to validate the competencies.

We also extend a thank you to all publishing companies, state departments of education, and software vendors that allowed us to produce their materials. These include:

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Stillwater, Oklahoma

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Mountain View, California

South Carolina Department of Public Education
Columbia, South Carolina

South-Western Publishing Company
Cincinnati, Ohio

We sincerely appreciate all persons who have contributed to the success of this curriculum guide. We are grateful for their commitment to business education in North Carolina.

Business and Office Education Staff

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PREFACE

Background

In 1987, the **Program of Studies** was revised to include both Computer Applications I and II. Prior to that time only Computer Applications was included in North Carolina's business education curriculum. This guide has been revised to include both levels of computer applications. Also this guide has been expanded to include transparency masters, handouts, and test items.

Description of Computer Applications I and II

This sequence of courses is designed to teach students how to use the computers as a business and personal tool through the use of application software. Appropriate software and applications include database management, word processing, graphics, spreadsheet, desktop publishing, telecommunications, presentation graphics, utilities, and project management. Integrated software and simulations are also used. Also operating systems are identified and used. Various jobs in computer-related fields are examined; employability skills, proper work habits, and leadership skills are also taught.

Prerequisites

Keyboarding/Typewriting is a prerequisite for Computer Applications I. A year of Computer Applications I is a prerequisite for Computer Applications II.

Outlines for Computer Applications I and II

COMPUTERS APPLICATIONS I

1. Care of Equipment and Materials

   a. Terminology
   b. Utilization and maintenance

2. Systems Software

   a. DOS function
   b. DOS command

3. Applications Software

   a. Database management
   b. Word processing
   c. Spreadsheet
   d. Graphics
   e. Integrated
   f. Telecommunications

4. Impact of Computers on Business and Industry

5. Career Opportunities

COMPUTERS APPLICATIONS II

1. Care of Equipment and Materials

    a. Terminology
    b. Utilization and maintenance

2. Systems Software

    a. DOS function
    b. DOS command

3. Software Evaluation

4. Career Opportunities

5. Leadership Skills Development

6. Computer Trends in Business & Industry

7. Applications Software

    a. Database management
    b. Word processing
    c Spreadsheet
    d. Graphics
    e. Integrated
    f. Telecommunications
        (1) Database service
        (2) Voice/electronic mail
        (3) Image transmission
    g. Desktop publishing
    h. Utilities
    i. Desktop utilities
    j. Project management
    k. Presentation graphics

8. Work Habits and Employability Skills

USE OF THIS PUBLICATION

This Computer Applications I and II guide consists of the following units of instruction:

A. Proper Care of Equipment and Materials
B. Basic Functions of a Computer System
C. Current Issues and Careers
D. Leadership Skills
E. Database Management
F. Spreadsheet
G. Graphics
H. Word Processing
I. Integrated Software
J. Telecommunications
K. Utilities
L. Project Management
M. Management Support
N. Desktop Publishing
O. Presentation Graphics
P. Evaluating Software
Q. Appropriate Work Habits
R. Seeking Employment

These units are written for the courses to be offered during a two-year period. Course outlines in the **Preface** of this document suggest what should be taught in levels I and II.

Each unit consists of the following sections:

-A table of contents
-The competency goal statement and competency objectives
-Student activities (To the left of these activities is a section that indicates when handouts and transparency masters should be used. Additional space is provided for additional notes or references.)
-Handouts (HO)
-Transparency masters (TM)
-Evaluation measures (CTIBS)
-Key to test items
-References

The appendix contains information on equipment and facility standards.

The teachers who served on the curriculum team and state staff believe that this document will be very beneficial to business teachers who teach Computer Applications I and/or II. Feedback is solicited to insure that this document is usable. If changes are needed, teachers are asked to make recommendations which will improve the quality of this document and Computer Applications I and II.

COMPETENCY OBJECTIVES
FOR
COMPUTER APPLICATIONS I AND II

1.1 Identify various input/output devices and media associated with a computer system.
1.2 Demonstrate the care of equipment and magnetic media.
1.3 Demonstrate proper start-up procedures to load software programs.
1.4 Identify and use appropriate control codes, and/or function keys.
1.5 Describe system configurations: interface cards, printer types, etc.
2.1 Identify hardware components of a computer system.
2.2 Identify the major uses of the computer as a tool for organizing and solving problems.
2.3 Identify software appropriate for a computer system in business and industry.
2.4 Demonstrate the use of disk operating-system commands to perform routine disk file maintenance.
3.1 Summarize current issues relating to business computer usage.
3.2 Identify the education, personal qualities, and work experience needed in computer-related careers.
4.1 Identify effective leadership skills developed through Future Business Leaders of America.
4.2 Plan, organize, and assume responsibility for effective meetings.
4.3 Exhibit attitudes of respect and cooperation of work relations.
5.1 Identify the advantages of using a database program.
5.2 Recognize database terms.
5.3 Identify several applications for which a database program can be used.
5.4 Prepare data to be used in a database file.
5.5 Create a database file.
5.6 Enter, update, add, and delete data in the file.
5.7 Search the database for specific information.
5.8 Print database reports.
5.9 Store and retrieve database files.
6.1 Identify the advantages of using a spreadsheet program.
6.2 Recognize spreadsheet terms.
6.3 Identify several applications in which spreadsheet programs can be used.
6.4 Enter labels, values, and formulas into spreadsheet cells.
6.5 Enter simple mathematical and statistical functions.
6.6 Demonstrate the use of the replicate or copy command for both labels and formulas.
6.7 Insert, delete, and move rows, columns and blocks.
6.8 Change column width.
6.9 Divide the screen into windows.
6.10 Fix titles horizontally and/or vertically.
6.11 Format both label and numeric entries.
6.12 Describe the logical operators AND, OR, NOT.
6.16 Print cell contents of spreadsheets.
6.17 Store and retrieve spreadsheet files.
7.1 Identify the advantages of using a graphics program.
7.2 Recognize graphics terms.

7.3 Identify several applications in which a graphics program can be used.
7.4 Create line, bar, and pie chart graphs.
7.5 Store and retrieve graphics files.
8.1 Identify the advantages of using a word-processing program.
8.2 Recognize word-processing terms.
8.3 Identify several applications in which a word-processing program can be used.
8.4 Open a document and/or create a file.
8.5 Enter and edit text using appropriate command keys.
8.6 Store, retrieve, and update word-processing files.
8.7 Use available subprograms: dictionary, thesaurus, mailmerge, printer, and/or screen utilities.
9.1 Identify the advantages of using an integrated program.
9.2 Recognize intergrated-software terms.
9.3 Identify several applications which could be performed by an integrated program.
9.4 Demonstrate the use of an integrated-software package.
9.5 Integrate word-processing files with database files.
9.6 Integrate spreadsheet and word-processing files.
9.7 Integrate word-processing and graphic files.
9.8 Integrate spreadsheet and graphic files.
10.1 Identify the advantages of using telecommunications services.
10.2 Recognize telecommunications terms.
10.3 Identify various types of telecommunications.
10.4 Identify and describe the hardware and software necessary for telecommunications.
10.5 Use a telecommunications simulation to demonstrate a variety of tasks.
11.1 Analyze the legal, ethical, and social issues which may arise from telecommunications technology.
11.2 Summarize the historical development of telecommunications.
12.1 Describe the process of preparing for database/bulletin board access (scope, topic, search criteria, etc.).
12.2 Demonstrate telecommunications linkage, log-on/off procedures, search a database, download, and print a database/bulletin board file.
13.1 Create a message for voice/electronic mail.
13.2 Demonstrate telecommunication linkage, log-on/off procedures, and transmit/retrieve messages.
14.1 Create image materials.
14.2 Demonstrate telecommunications linkage and log-on/off procedures and transmit image (s).
15.1 Describe the purpose of screen, keyboard, and printer-utility programs.
15.2 Demonstrate start-up procedures to load utility program.
15.3 Identify control keys used to activate utility program.
16.1 Identify the advantages of project-management software.
16.2 Recognize project-management terms.
16.3 Identify applications in which project-management software can be used.
16.4 Demonstrate various tasks using project-management software.
17.1 Identify the advantages of management-support software.
17.2 Recognize management-support terms.
17.3 Identify applications in which management-support software can be used.
17.4 Demonstrate various tasks using management-support software.

18.1 Identify hardware components and software for desktop publishing.
18.2 Summarize the advantages of using a desktop-publishing program.
18.3 Recognize desktop-publishing terms.
18.4 Describe the steps of the desktop-publishing cycle.
18.5 Identify applications in which desktop publishing programs can be used.
18.6 Identify the principles and techniques of page design.
18.7 Prepare materials to be used in a desktop publication.
18.8 Create a text file for desktop publication using word-processing software.
18.9 Create graphs and/or images for desktop publication.
18.10 Format page make-up.
18.11 Print a desktop-publishing document.
19.1 Identify the advantages of presentation graphics.
19.2 Identify input/output devices and media used in presentation graphics.
19.3 Identify several applications in which presentation-graphics software can be used.
19.4 Identify the principles and techniques of constructing graphics.
19.5 Recognize the type of graph most appropriate for a particular set of data.
19.6 Assemble data to be used in presentation graphics.
19.7 Create graphs and/or images for presentations.
19.8 Develop reports or presentations with emphasis on strategic placement of graphic aids.
20.1 Evaluate the suitability of the software for the intended purpose.
20.2 Evaluate the availability and quality of the learning materials accompanying the package.
20.3 Evaluate the compatibility of the software package with current equipment and operating system.
20.4 Evaluate the quality and usefulness of the internal program help screens, menus, and function key assignments available in the package.
20.5 Evaluate the quality, availability, and cost of vendor and/or publisher support of the package.
21.1 Exhibit cooperation with co-workers and accept constructive criticism.
21.2 Display appropriate attention to details in work.
21.3 Plan and organize work by setting priorities for performing job tasks.
21.4 Identify and follow classroom standards and procedures.
22.1 Develop interviewing skills that will enable the applicant to be considered for a job.
22.2 Complete a job application form correctly and legibly.
22.3 Develop a resume.

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COMPETENCIES
FOR
PROPER CARE OF EQUIPMENT AND MATERIALS

COMPETENCY GOAL 1: The learner will demonstrate proper care of equipment and materials.

COMPETENCY OBJECTIVES

1.1 Identify various input/output devices and media associated with a computer system.

1.2 Demonstrate the care of equipment and magnetic media.

1.3 Demonstrate proper start-up procedures to load software programs.

1.4 Locate, identify, and use appropriate control codes, and/or function keys.

1.5 Describe system configurations: interface cards, printer types, etc.

STUDENT ACTIVITIES
FOR
PROPER CARE OF EQUIPMENT AND MATERIALS

Orientation to Equipment

1. Identify the various input/output devices associated with the available equipment such as:

   a. Keyboard (function keys, main keyboard, cursor/numeric keypad)
   b. Screen (monochrome/color)
   c. Central processing unit
   d. Disk drives (floppy/hard/internal/external)
   e. Printer, plotter, modem, facsimile

2. Discuss terminology as it relates to equipment.

3. Discuss the purpose of the various kinds of input/output devices associated with computer equipment.

Orientation to Materials

1. Identify the different types of media to be used within the classroom such as:

   a. Vendor software (application and tutorial)
   b. Backup copy
   c. Operating system
   d. Blank disk
   e. Data disk

2. Discuss terminology as it relates to computer media.

3. Define the purpose of the various types of media to be used.

4. Discuss the available reference material, software documentation and handout material to be used.

Proper Care of Equipment

1. Explain and demonstrate proper start-up procedures.

2. Demonstrate proper cleaning techniques of screen, disk drives printheads, where applicable.

3. Explain proper input/output connections.

4. Discuss possible error messages and their meanings.

5. Explain proper procedures for relocation of equipment.

Planning Notes

HO2, TM1
TM2

Proper Care of Media and Materials	**Planning Notes**
1. Discuss terminology as it relates to media and materials.	
2. Show and describe the various parts of media.	TM5
3. Discuss the proper way to handle media.	HO1, TM3
4. Demonstrate proper method of using media with equipment.	TM4
5. Discuss the proper way to label and store media.	
6. Demonstrate the proper way to insert and align paper into printers, plotters, fascimile machines, etc.	
7. Demonstrate the proper way to change printer ribbons or insert plotter pens.	

PROPER CARE OF FLOPPY DISK

- * DO NOT BEND OR FOLD DISK
- * DO NOT ATTACH MATERIALS TO DISK WITH CLIP
- * DO NOT TOUCH THE READ/WRITE AREA OR ANY EXPOSED AREA OF A DISK
- * KEEP DISK AWAY FROM ANY MAGNETIC FIELDS
- * STORE DISK IN AN UPRIGHT POSITION AT ALL TIMES
- * STORE DISK AWAY FROM HEAT AND/OR COLD
- * DO NOT WRITE DIRECTLY ON A DISK WITH PENCIL OR BALL POINT PEN
- * WRITE ON DISK ONLY WITH SOFT-TIP (FLAIR) PEN
- * DO NOT STACK LABELS ON DISK

Proper Care of Equipment and Materials

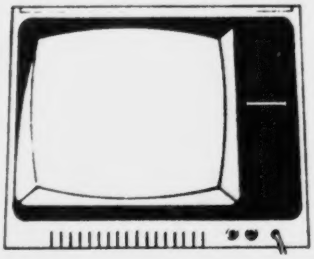
BASIC COMPUTER EQUIPMENT
INPUT / OUTPUT DEVICES

INPUT DEVICES

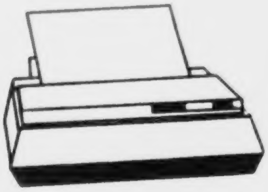
- Disk drive(s) when loading files or software
- Keyboard

OUTPUT DEVICES

- Disk drive(s) when storing files
- Printer
- Screen



a.



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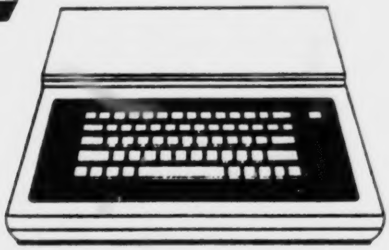

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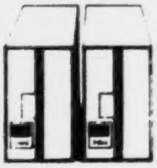


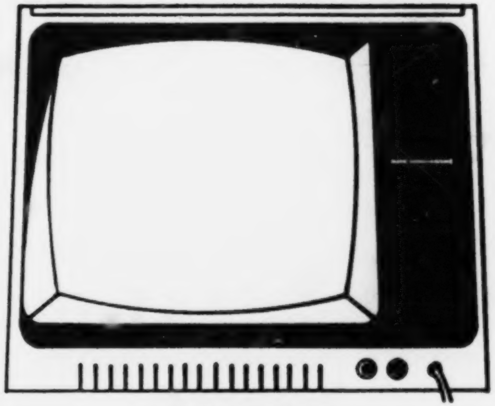
d.

a. ____________________ c. ____________________

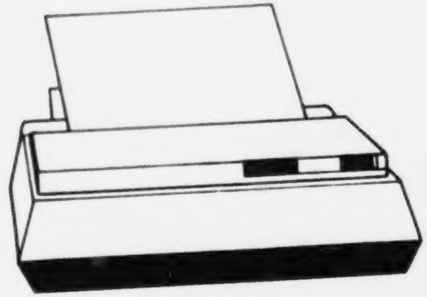
b. ____________________ d. ____________________

Source: **Intro To Microcomputer Applications** Mid-America Vocational Curriculum Consortium

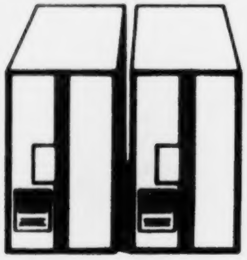
Major Components of the Microcomputer



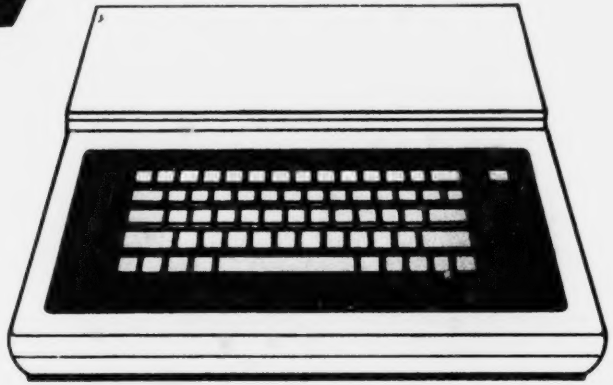
Monitor



Printer



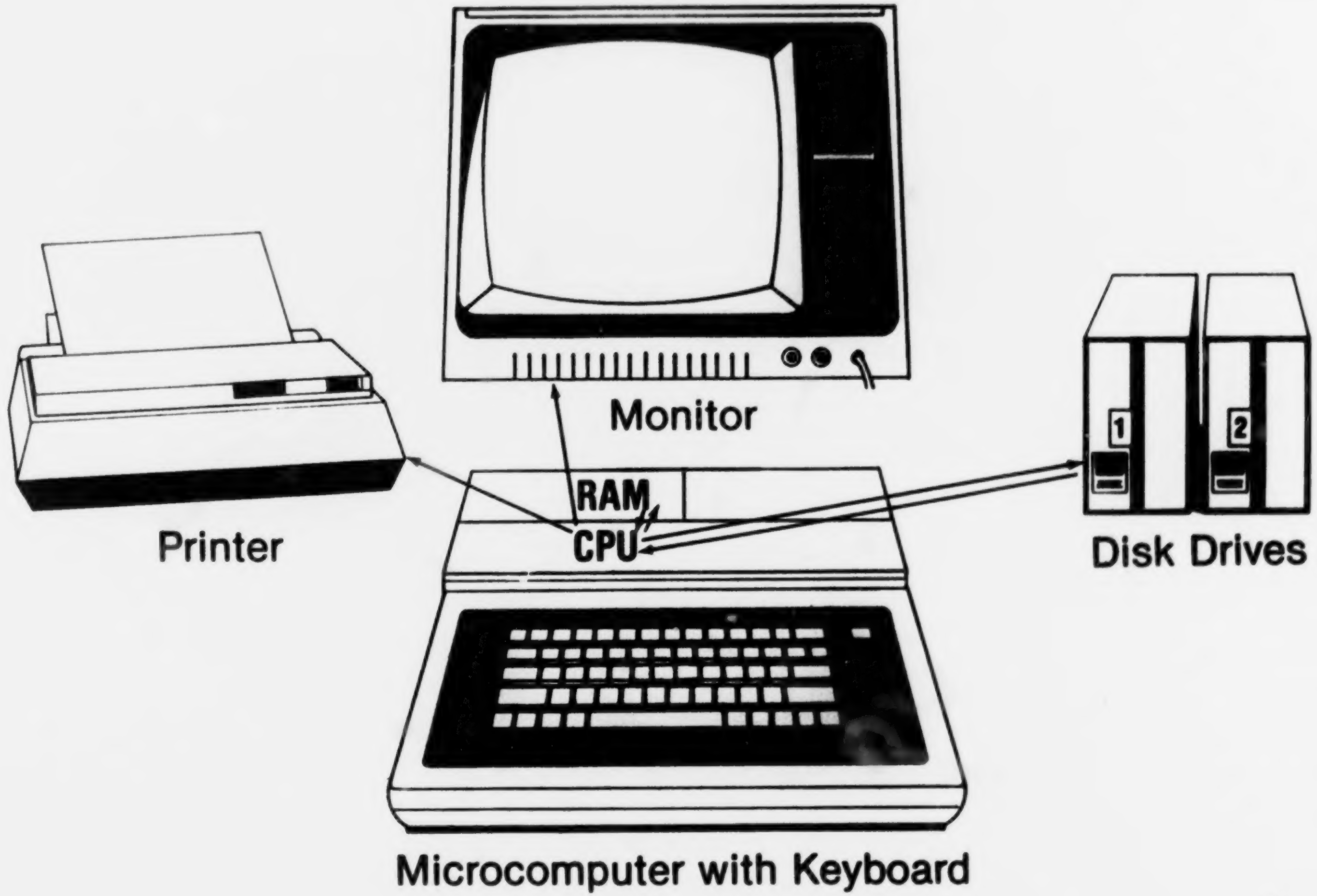
Disk Drives



Microcomputer with Keyboard

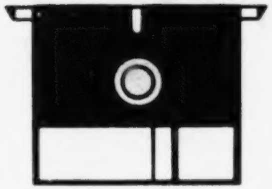
Source: *Intro To MicroComputer Applications, Mid American Vocational Curriculum Consortium, 1984.*
Care of Equipment and Materials
A-7

Flow of Computer Information

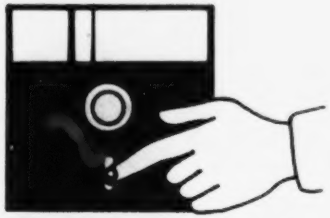

Monitor
Printer
RAM
CPU
1
2
Disk Drives
Microcomputer with Keyboard

Source: *Intro To MicroComputer Applications, Mid American Vocational Curriculum Consortium, 1984.*
Care of Equipment and Materials
A-8

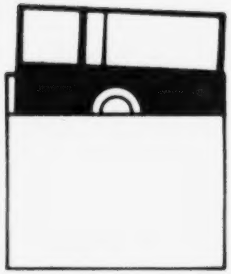
Handling a Floppy Diskette



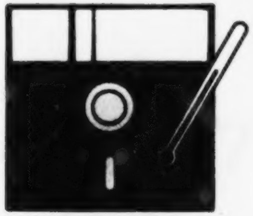
Insert carefully



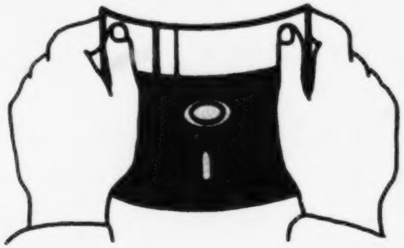
Never touch diskette



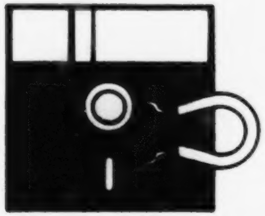
Protect in envelope



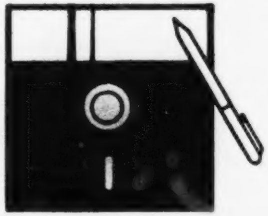
Maintain temperature of 50°F to 125°F



Do not bend or fold



Never expose to magnetic field

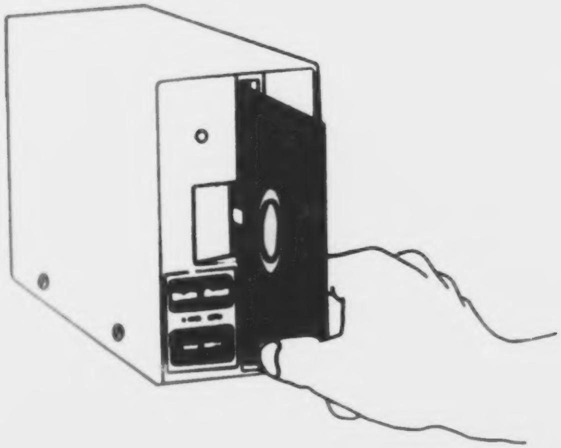


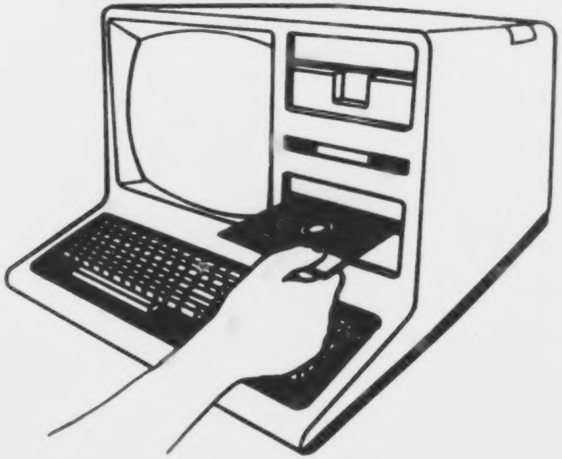
Use only felt tip pen on jacket

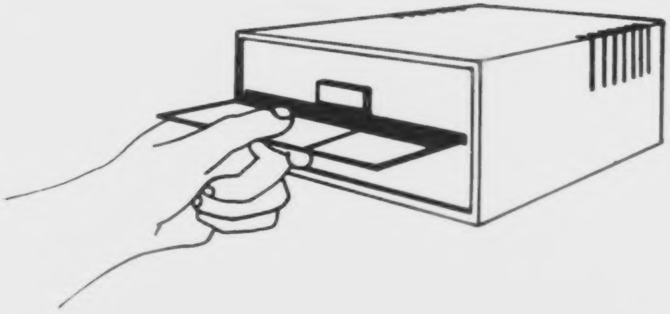
Source: *Intro To MicroComputer Applications, Mid American Vocational Curriculum Consortium, 1984.*
Care of Equipment and Materials
A-9

TM3

Inserting a Floppy Diskette



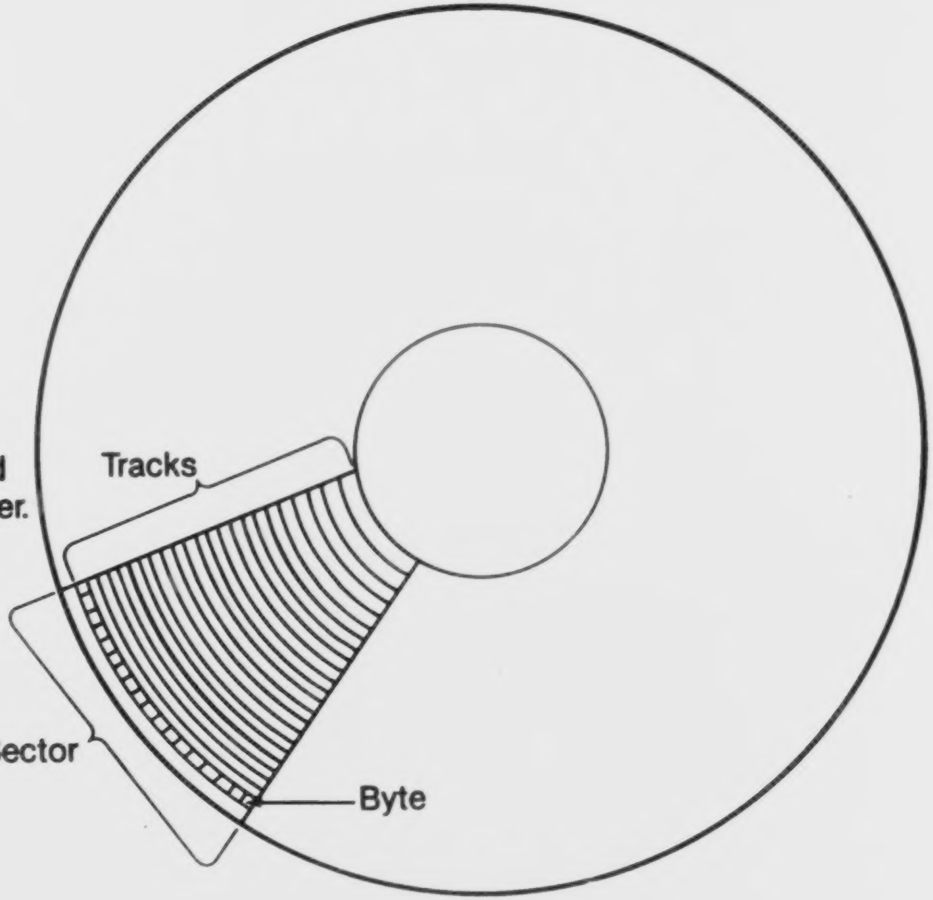




Source: *Intro To MicroComputer Applications*, Mid American Vocational Curriculum Consortium, 1984.
Care of Equipment and Materials
A-10

TM4

Floppy Diskettes



The tracks of a disk are arranged inside one another.

Floppy diskettes are housed in anti-dust jackets.

Source: *Intro To MicroComputer Applications, Mid American Vocational Curriculum Consortium, 1984.*
Care of Equipment and Materials
A-11

EVALUATION MEASURES
FOR
PROPER CARE OF EQUIPMENT AND MATERIALS

COMPETENCY GOAL 1: The learner will demonstrate proper care of equipment and materials.

OBJECTIVE 1.1: Identify various input/output devices and media associated with a computer system.

Test Item 001-1.1-01

INSTRUCTIONS TO STUDENTS: Match the terms listed in the left column with the correct description given in list on the right. Write the corresponding letter in the blank provided.

_____ 1. Keyboard
_____ 2. Screen
_____ 3. Printer
_____ 4. Softcopy
_____ 5. Hardcopy
_____ 6. Monochrome screen
_____ 7. Function keys
_____ 8. Facsimile
_____ 9. Software
_____ 10. Disk

A. CRT, monitor, video display

B. Copy printed to paper

C. Copy transmitted via facsimile machine

D. Copy stored to media

E. Device used to manually enter data into the computer's memory.

F. Output device which prints files to paper

G. Red, green blue (RGB) display

H. Magnetic medium used to store or load data and programs

I. Programs stored on magnetic media which allow the user to perform various operations such as: graphics, word processing, database entries, etc.

J. Display with one color text and one color background

K. Image(s) transmitted over wire

L. Keys on the keyboard that are programmed by the software to perform special operations unique to the software being used

Test Item 001-1.1-02

INSTRUCTIONS TO STUDENTS: Complete the sentences below by writing in the blank provided the term which best completes the statement.

1. Magnetic medium which is usually defined as either 5 inch or 3 inch size used to store or load data and programs is called ____________________.
2. Programs which are stored on magnetic media which allow the user to perform vaious operations such as: graphics, word processing database entries, etc. is called ____________________.
3. A __________ monitor displays with a one color text and a one color background.
4. Images which are transmitted over wire(s) are called ____________________.
5. The keys on the keyboard that are programmed by the software to perform special operations unique to the software being used are called ________________.
6. The file copy which is stored directly onto the magnetic media being used is called _____________.
7. The ____________________ is the device used to manually enter data into the computer's memory.
8. The copy of a file created which is printed to paper is called a __________________.
9. Another name for CRT, monitor, video display is ________________________.
10. Output device which prints copy of file directly to paper is called ________________ _________.

OBJECTIVE 1.2: Demonstrate the care of equipment and magnetic media.

Test Item 001-1.2-01

INSTRUCTIONS TO STUDENTS: In the blank provided beside each statement, select the best answer from the list given below and write the letter in the blank.

_____ 1. The purpose of the disk sleeve is to

a. allow storage
b. adhere a label
c. protect the read/write area
d. has no special purpose

_____ 2. Proper care of the screen involves

a. keeping the brightness control on high
b. cleaning regularly with a strong detergent
c. turning the screen off or brightness down when not in use
d. using an add-on nonglare screen filter

_____ 3. Proper storage of 5 ½ inch disk requires

a. stacking the disk upright in a box
b. storing to a hard drive
c. laying the disk flat in a box
d. converting all data to 3 inch disk

_____ 4. Before moving a machine with a hard drive the user should

a. run a directory command
b. restore all files
c. repack in the original box
d. park the head on the hard drive

_____ 5. Which of the following items is **not** a proper procedure for the care of a computer?

a. routine dusting of all machine parts
b. removal of smudges and finger prints from screen
c. periodic changing of printer ribbons
d. periodic cleaning of disk drive
e. periodic cleaning of hard drive

Test Item 001-1.2-02

INSTRUCTIONS TO STUDENTS: Below is a list of procedures for the care of computer equipment and materials. Place a X in the blank beside those which are correct to follow.

		Yes	No
1.	It is proper to write directly on a disk using a felt tip pen.	________	________
2.	It is proper to stack labels on a disk.	________	________
3.	It is proper to lay a disk flat.	________	________
4.	It is proper to write directly on a disk using a ball point pen or pencil.	________	________
5.	It is proper to keep a disk away from heat and cold.	________	________
6.	It is proper to clean a disk with mild cleaner.	________	________
7.	It is proper to keep a disk away from magnetic fields.	________	________
8.	It is proper to clean the screen and keyboards with a mild cleaner.	________	________
9.	It is proper to store a disk in dust covered boxes.	________	________
10.	It is proper to store a disk without protective sleeves.	________	________

Test Item 001-1.2-03

INSTRUCTIONS TO STUDENTS: Demonstrate to the instructor the correct procedure(s) used in the care of materials and equipment being used in class.

A. Handle disk correctly.

B. Label disk correctly.

C. Store disk correctly.

D. Clean machine components properly.

OBJECTIVE 1.3: Demonstrate proper start-up procedure to load software programs.

Test Item 001-1.3-01

INSTRUCTIONS TO STUDENTS: Demonstrate to the instructor the proper procedure(s) used in class to start up the operating system currently being used and a given software package currently being used by carrying out the following:

a. Insert the operating disk in the proper drive(s) at the proper time.

b. Insert the disk correctly.

c. Respond correctly to all screen prompts.

d. Insert the given software disk at the proper time.

e. Load the software package to the screen.

Test Item 001-1.3-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements relate to proper start-up procedures for loading the current operation system and a given software package. Determine if each statement is true or false. Record the correct response (True or False) in the blank to the left of each statement.

________ 1. The operating system must be loaded from Drive B:.

________ 2. In order for a software package to load, the operating system must first be loaded.

________ 3. The operating system is a software package.

________ 4. The user should use a backup copy of the operating system and keep the original in a safe place.

________ 5. To load a software program a keyword command must be typed in on the screen unless an autoexec.bat file is present.

OBJECTIVE 1.4: Locate, indentify, and use appropriate control codes, and/or function keys.

Test Item 001-1.4-01

INSTRUCTION TO STUDENTS: Locate and identify the appropriate control keys and/or function keys used in the given software program by responding to the following list.

________ 1. What key(s) is used to advance the screen upward?

________ 2. What key(s) is used to advance the screen downward?

________ 3. What key(s) is used to move the cursor to the right of the screen?

________ 4. What key(s) is used to move the cursor to the left on the screen?

________ 5. What key(s) is used to move the cursor upward on the screen?

________ 6. What key(s) is used to move the cursor downward on the screen?

________ 7. Are the function keys programmed with special functions within this package?

________ 8. What key(s) is used for activating the insert mode?

________ 9. What key(s) is used for deleting information?

________ 10. What key(s) allows for capital letters to be typed?

Test Item 001-1.4.02

INSTRUCTIONS TO STUDENTS: Demonstrate to the instructor the proper control keys and/or function keys used in the given software program by performing the following procedures correctly.

A. Advance the screen upward.

B. Advance the screen downward.

C. Move cursor to the right on the screen.

D. Move the cursor to the left on the screen.

E. Move the cursor up the screen.

F. Move the cursor down the screen.

G. Use the function keys correctly.

H. Use the delete key(s).

I. Use the correct key(s) to type capital letters.

J. Use the insert key(s).

OBJECTIVE 1.5: Describe system configurations: interface cards, printer types, etc.

Test Item 001-1.5-01

INSTRUCTIONS TO STUDENTS: Match the terms listed in the left column with the correct description given in the list on the right. Write the corresponding letter in the blank provided.

_____ 1. Graphic printer

_____ 2. NLQ

_____ 3. Daisywheel

_____ 4. Serial interface

_____ 5. Video card (port)

_____ 6. Stand-alone system

_____ 7. RGB monitor

_____ 8. CPU

_____ 9. Graphics capability

_____ 10. Network

A. Near Letter-Like Quality

B. Communications card used with modems, plotters, and serial printers

C. Interface card needed to attach a screen to the computer

D. Interface card need to attach an external drive

E. Printers that print in dot matrix form necessary to print pictures, charts or graphs

F. A printhead used in printers that prints text in typewriter quality

G. Central Processing Unit

H. Monochrome screen

I. Screen, keyboard, system unit with storage, and printer

J. System which allows more than one computer to communicate

K. Color monitor

L. The ability to display and/or print graphics

Test Item 001-1.5-02

INSTRUCTIONS TO STUDENTS: Complete the sentences below by writing in the blank the term which best completes the statement.

1. The abbreviation used to mean Near Letter-Like Quality is ________________ .

2. The type of communication card used with modems, plotters and serial printers is called a ______________________ .

3. The type of interface card needed to attach a screen to a computer is called a ________________ .

4. A printer that prints in dot matrix form necessary to print pictures, charts or graphs is called a __________________

5. The circular printhead used in printers that prints in typewriter quality and prints only text is called ________________ .

6. An abbreviated form used to refer to the central processing unit of a computer is ______________ .

7. A complete and functional computer system which includes a keyboard, screen, system unit with storage, and a printer is referred to as a ________________ .

8. A screen which displays in red, green, blue (RGB) is called a ____________________ .

9. The ability of a screen to display graphics or a printer to print graphics is called ________________ .

10. The equipment and wire system used to allow one computer to communicate with another is called a ____________________ .

TEST ITEM KEYS
FOR
PROPER CARE OF EQUIPMENT AND MATERIALS

Test Item 001-1.1-01

1. E
2. A
3. F
4. D
5. B
6. J
7. L
8. C
9. I
10. H

Test Item 001-1.1-02

1. Disk
2. Software
3. Monochrome
4. Facsimile
5. Function Keys
6. Softcopy
7. Keyboard
8. Hardcopy
9. Screen
10. Printer

Test Item 001-1.2-01

1. C
2. C
3. A
4. D
5. E

Test Item 001-1.2-02

1. Yes
2. No
3. No
4. No
5. Yes
6. No
7. Yes
8. Yes
9. Yes
10. No

Test Item 001-1.2-03

Check List for Proper Care of Materials:

_____ 1. The student properly handles disks or other storage media.

_____ 2. The student properly labels disks or other storage media.

_____ 3. The students stores materials and media in the proper place and in the correct manner.

_____ 4. The student takes proper care of equipment.

Test Item 001-1.3-01

Check List for Proper Start-up Procedures:

_____ 1. The student inserted the disk in the drive.

_____ 2. The student recognized and responded correctly to all the screen prompts.

_____ 3. The student removed the operating system disk (if necessary) and inserted the software program.

_____ 4. The student entered in the proper command to load the given software program.

_____ 5. The software was loaded.

Test Item 001-1.3-02

1. False
2. True
3. True
4. True
5. True

Test Item 001-1.4-01

The answers for this test item will vary according to the equipment and software being used.

Test Item 001-1.4-02

Check List for Locating and Identifying the Code and Function Keys of the Software Being Used:

_____ 1. The student located the proper keys to advance the screen upward.

_____ 2. The student located the proper keys to advance the screen downward.

_____ 3. The student moved the cursor to the right.

_____ 4. The student moved the cursor to the left.

_____ 5. The student moved the cursor up the screen.

_____ 6. The student moved the cursor down the screen.

_____ 7. The student used the function keys.

_____ 8. The student used the insert key(s).

_____ 9. The student used the delete key(s).

_____ 6. The student used the key(s) to type capital letters.

Test Item 001-1.5-01

1. E
2. A
3. F
4. B
5. C
6. I
7. K
8. G
9. L
10. J

Test Item 001-1.5-02

1. NLQ
2. Serial interface (card/port)
3. Video interface (card/port)
4. Graphics printer
5. Daisywheel
6. CPU
7. Stand-alone system
8. Color
9. Graphics capability
10. Network

PARTIAL LISTING OF REFERENCES
FOR
CARE OF EQUIPMENT AND MATERIALS

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Brightman and Dimsdale. **Using Computers In An Information Age** (Chapter 2). Southwestern Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1-800-543-7972. 1988.

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Sachs, Jonathan. **Your IBM-PC Made Easy.** McGraw-Hill Company, Gregg Division, PO Box 401, Highstown, NJ 08520. 1-800-334-7344.

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SOFTWARE

The Instructor: A PC Tutorial. Individual Software, Inc., 1163-I Chess Drive, Foster City, CA 94404. 1-415-341-6116.

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TABLE OF CONTENTS

FOR
BASIC FUNCTIONS OF A COMPUTER SYSTEM

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COMPETENCIES

FOR

BASIC FUNCTIONS OF A COMPUTER SYSTEM

COMPETENCY GOAL 2: The learner will identify and describe the basic functions of a computer system.

COMPETENCY OBJECTIVES

2.1 Identify hardware and software characteristics of a computer system.

2.2 Identify the major uses of the computer as a tool for organizing and solving problems.

2.3 Identify applications appropriate for a computer system in business and industry.

2.4 Demonstrate the use of disk operating system commands to perform routine disk file maintenance.

STUDENT ACTIVITIES
FOR
BASIC FUNCTIONS OF A COMPUTER SYSTEM

Orientation to Hardware

1. Identify the various hardware components to be used in the classroom.
2. Discuss the purpose of the various hardware components.
3. Discuss terminology as it relates to hardware.
4. Identify peripherals to be interfaced with computers.
5. Identify and explain the purpose of all keys on the keyboard to be used.

The Computer as an Organizational Tool

1. Discuss the advantages of using a computer to organize information.
2. Identify various types of software and their usage.
3. Discuss various types of software applications.
4. Discuss terminology as it relates to media, files, storage and space utilization.
5. List different types of businesses and the various types of software applications each might use.

Orientation to Disk Operating System and Start-up Procedures

1. Define operating system.
2. Discuss the operating system.
3. Discuss other available operating systems.
4. Discuss the purpose of the operating system.
5. Discuss terminology as it relates to the operating system.

Planning Notes

HO1, TM1, TM2

TM3, TM4

Planning Notes

6. Demonstrate the proper start-up procedures for loading the operating system.
7. Discuss the purpose and need for a backup copy of the operating system.
8. Demonstrate the proper method for exiting the operating system.

Disk Operating System Commands

1. List and explain the various operating system commands.

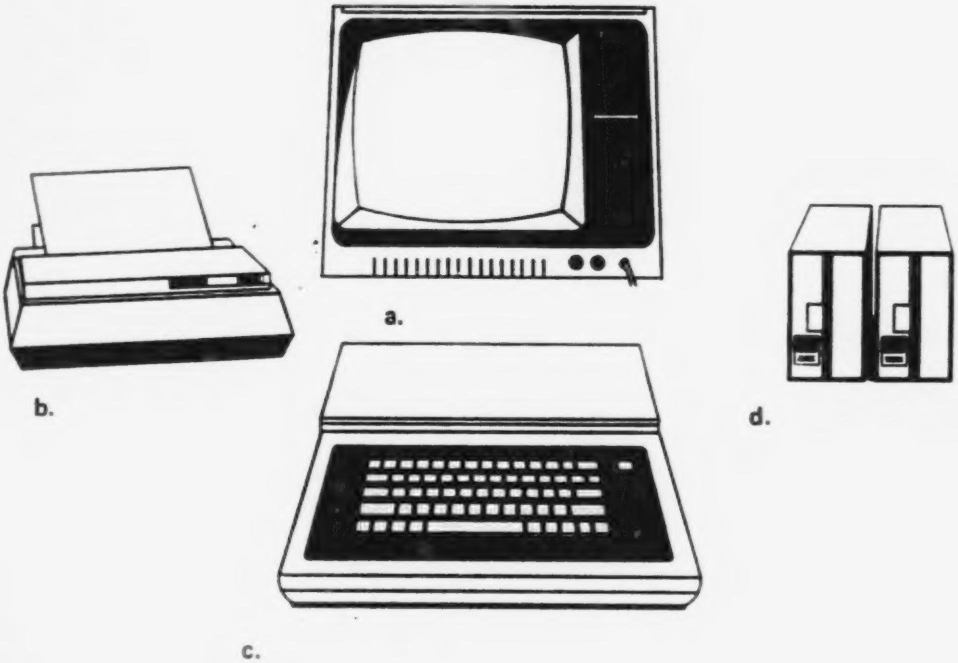
   HO2 through HO5

2. Discuss the terminology as it relates to the operating system commands.
3. Demonstrate function keys or special keys that apply to using the operating system.
4. Demonstrate various operating system commands that will
   a. view file(s).
   b. copy file(s).
   c. date entry.
   d. time entry.
   e. rename file(s).
   f. erase/delete file(s).
   g. check disk/file(s).
5. Discuss error messages and their meanings.

Using the Operating System to Manage Files

1. Define file management.
2. Discuss terminology as it pertains to file management.
3. Demonstrate directories/files.
4. Define backup disk/files.
5. Demonstrate backup disk/files.
6. Define data/storage disk and file/space allocation.
7. Demonstrate how to make data/storage disk.
8. Demonstrate commands to copy/duplicate and erase/delete files.
9. Discuss copyright and license agreements.
10. Define copy protection.

BASIC COMPUTER COMPONENTS



a. ____________________ c. ____________________

b. ____________________ d. ____________________

Source: **Intro To Micro Computer Applications**
Mid-American Vocational Curriculum Consortium, 1984

BASIC DISK OPERATING COMMANDS
FOR
IBM-PC - MS-DOS

HO2

DIRECTORY COMMANDS

Options:

```
A>DIR
A>DIR/W
A>DIR/P
A>DIR M*.*
A>DIR>PRN
A>DIR B:
```

MODE COMMANDS

Options:

```
A>MODE C040
A>MODE MONO
A>MODE C080
A>BW80
```

COPY COMMANDS

Options:

```
A>COPY Filename.Ext B:
A>COPY *.* B:
A>COPY Filename.* B:
A>COPY *.Ext B:
A>COPY Filename.Ext LPT1
```

BASIC DISK OPERATING COMMANDS
(Continued)

DISKCOPY COMMANDS
Options:

A>DISKCOPY A:
For use with a one disk drive system

A>DISKCOPY A: B:
For use with a two disk drive system

A>DISKCOPY A: B:/1
Copies to only one side of disk in drive B:

CLEAR COMMAND
Options:

A>CLS - Clears screen not memory

DISK COMPARE COMMANDS
Options:

A>DISKCOMP A:
Compares two disk using only one disk drive

A>DISKCOMP A: B:
Compares disk in drive A: to disk in Drive B:

BASIC DISK OPERATING COMMANDS
(Continued)

DATE / TIME COMMANDS

Options:

A > DATE

Allows date to be entered or changed after DOS has been loaded.

A > TIME

Allows time to be entered or changed after DOS has been loaded.

DRIVE CHANGE COMMANDS

Options:

A > B:

Makes Drive B active.

A > C:

Makes Drive C active.

RENAME COMMANDS

Options:

A > RENAME Oldfilename.Ext Newfilename.Ext

Type command word and space then type complete existing filename and space and type in complete new filename.

The abbreviation of REN can be used instead of RENAME.

BASIC DISK OPERATING COMMAN
(Continued)

ERASE / DELETE COMMANDS

Options:

```
A>ERASE  Filename.Ext
A>ERASE  *.*
A>ERASE  *.Ext
A>Erase  Filename.*
```

The abbreviation DEL can be used instead of

To ERASE/DEL files on Drive B or Drive C the must change to the desire drive and then ent command.

Example:

```
A>B:
B>ERASE  Filename.Ext
```

nstead of ERASE.

rive C the user
l then enter the

MINIMUM STANDARDS FOR SYSTEM CONFIGURATION IF PURCHASING A STAND-ALONE COMPUTER FOR TODAY'S USER

* * * * * * *

- 640k Of Memory
- Screen with Graphic Capability
- Parallel and Serial Printer Ports
- Keyboard
- Two Drives - Two Floppy Drives
  One Floppy & One Hard Drive Optimal
- Mouse
- Graphic Printer
  Laser Printer Optimal
  Plotter Optional
- Expansion Slots

CENTRAL PROCESSING UNIT
CPU
(System Unit-Logic-Brain)

Under The Cover Of The System Unit You Will Find:

- System Board
- Memory Chips
- Disk / Hard Drive(s)
- Printer Card
- Power Supply
- Video Adapter
- Audio Speaker

DOS
DISK OPERATING SYSTEM

The Most Powerful and Important
Software Program Available
To You The User.
BE SMART. . . LEARN DOS!

* * *

The Operating System Controls
Input/Output Devices
And
Manages Files on Directory

* * * * *

DOS CONTROLS THE COMPUTER
AND
THE USER MUST CONTROL DOS!

DOS HELPS THE USER TO:

* Backup Files

* Change from one Drive to Another

* Copy Files

* Erase / Delete Files

* Format / Initialize Disk

* Rename Files

* View Files on Current Drive

EVALUATION MEASURES

FOR

BASIC FUNCTIONS OF A COMPUTER SYSTEM

COMPETENCY GOAL 2: The learner will identify and describe the basic functions of a computer system.

OBJECTIVE 2.1: Identify hardware and software characteristics of a computer system.

Test Item 002.1-01

INSTRUCTIONS TO STUDENTS: In the blank provided beside each statement, select the best answer from the list given below and write the letter in the blank.

_____ 1. The computer industry memory standard for a stand alone computer system is

A. 256K
B. 128K
C. 512K
D. 640K

_____ 2. In order to view graphics on a computer monitor, the computer must have

A. a color screen
B. a graphics adapter card
C. a monochrome screen
D. RGB screen

_____ 3. In order to communicate through any type of network, a computer must have a

A. video card
B. parallel output card
C. serial output card
D. graphics adapter card

_____ 4. Currently disk drives in stand alone computer systems are defined in two sizes

A. 8 inch and 5½ inch drives
B. 5¼ inch and 3½ inch drives
C. 8 inch and hard drive
D. 5½ and 3½ inch drives

_____ 5. A complete stand alone computer system should include

A. monitor, CPU with storage, keyboard
B. monitor, CPU with storage, keyboard, modem
C. monitor, keyboard, printer, disk drive
D. monitor, CPU with storage, keyboard, printer

_____ 6. A blank disk will not be recognized by a computer until the disk has been

A. formatted/initialized
B. copied to a backup disk
C. magnetized
D. verified

_____ 7. Another form of auxiliary storage other than floppy disk drives found on a stand alone computer system is

A. double density disk drive
B. fixed or hard drive
C. magnetic tape drive
D. peripheral device

_____ 8. Printers that print letter quality using a beam of light are called

A. dot matrix
B. ink jet
C. laser
D. daisywheel

_____ 9. The software program that directs the way a computer's resources are made available to the user and to the applications software is called the

A. operating system
B. Random Access Memory
C. word processing program
D. utility software

_____ 10. Input/Output devices which are attached to a computer system are called

A. media devices
B. system devices
C. resident devcices
D. peripheral devices

Test Item 002-2.1-02

INSTRUCTIONS TO STUDENTS: Complete the sentences below by writing in the blank provided the term which best completes the statement.

1. The computer industry memory standard for a stand-alone computer system is ______________ .
2. In order to view graphics on a computer monitor, the computer must have a ______________ .
3. In order to communicate through any type of network, a computer must have a ______________ .
4. Currently disk drives in stand-alone computer systems are defined in what two sizes? ______________ and ______________ .
5. A complete stand-alone computer system should include what components? ______________________________
6. A blank disk will not be recognized by a computer until the disk has been ______________ .
7. Another form of auxilary storage other than floppy disk drive(s) found on a stand-alone computer system is ______________ .
8. Printers that print letter quality using a beam of light are called ______________ .
9. The software program that directs the way a computer's resources are made available to the user and to the applications software is called the ______________ .
10. Input/Output devices which are attached to a computer system are called ______________ .

OBJECTIVE 2.2: Identify the major uses of the computer as a tool for organizing and solving problems.

Test Item 002-2.2-01

INSTRUCTIONS TO STUDENTS: Place an X in the **Yes** column if the statement below is accurate or an X in the **No** column if the statement is not accurate.

	Yes	**No**
1. Computers can help save a company money.	______	______
2. An employee can produce more in less time by using a computer	______	______
3. Computers are too expensive for most businesses to purchase.	______	______
4. Companies are in great need for experienced computer operators and only hire people with computer science degrees.	______	______
5. Computers speed up routine task in an office.	______	______
6. Computers are mainly found in hospitals and government offices.	______	______
7. To learn to operate most word-processing programs takes many months.	______	______
8. A computer is a problem-solving tool.	______	______
9. The use of computers will be obsolete in less than five years.	______	______
10. Computers allow companies to communicate with great speed nationally and internationally.	______	______
11. Companies are using computers to purchase goods or send payments via networks.	______	______
12. Many companies use in-house training for employees to learn computer software.	______	______
13. There are many jobs in today's offices that can still be done more efficiently with pen and paper.	______	______
14. Most users of computers are programmers.	______	______
15. For a business to be successful in the future its employees need to be computer literate.	______	______

Test Item 002-2.2-02

INSTRUCTIONS TO STUDENTS: In the blanks provided, respond to the information requested.

1. List four (4) ways that a business might use a computer to help organize information.

   1. ______________________ 3. ______________________

   2. ______________________ 4. ______________________

2. List four (4) types of problems that a business might have that a computer system could help solve.

   1. ______________________ 3. ______________________

   2. ______________________ 4. ______________________

OBJECTIVE 2.3: Identify applications appropriate for a computer system in business and industry.

Test Item 002-2.3-01

INSTRUCTIONS TO STUDENTS: Select from the list of **Types of Software** the software that would best be used to accomplish each task in the **Tasks List.** Write the corresponding letter in the blank provided.

Type of Software

A. Disk Operating System
B. Word-processing program
C. Spreadsheet program
D. Database program
E. Graphics program
F. Utility program
G. Desktop-publishing program
H. Telecommunications program
I. Project-management program

Tasks List

_____ 1. Create student information files
_____ 2. Create a letter or memorandum
_____ 3. Prepare a balance sheet
_____ 4. Prepare tax information
_____ 5. Create a bar graph
_____ 6. Create a production schedule
_____ 7. Access a public database
_____ 8. Create a pie chart
_____ 9. Change font style or size to the printer
_____ 10. Create records for an employee file
_____ 11. Manage computer files stored on magnetic media
_____ 12. Create an employee newsletter
_____ 13. Create an advertising brochure
_____ 14. Create an employee procedures manual
_____ 15. Access a private database such as Dow Jones
_____ 16. Change the screen colors on a color monitor
_____ 17. Create a Pert or Gantt chart
_____ 18. Create a payroll sheet
_____ 19. Create a line chart
_____ 20. Change dot matrix print to letter quality

Test Item 002-2.4-02

INSTRUCTIONS TO STUDENTS: In the blanks provided, respond to the information requested.

1. List two (2) tasks that could be accomplished using the available Disk Operating System.

   1. ______________________________
   2. ______________________________

2. List two (2) tasks that could be accomplished using a word-processing program.

   1. ______________________________
   2. ______________________________

3. List two (2) tasks that could be accomplished using a spreadsheet program.

   1. ______________________________
   2. ______________________________

4. List two (2) tasks that could be accomplished using a database program.

   1. ______________________________
   2. ______________________________

5. List two (2) tasks that could be accomplished using a graphics program.

   1. ______________________________
   2. ______________________________

6. List two (2) tasks that could be accomplished using a utility program.

   1. ______________________________
   2. ______________________________

7. List two (2) tasks that could be accomplished using a desktop-publishing program.

   1. ______________________________

   2. ______________________________

8. List two (2) tasks that could be accomplished using a telecommunications program.

   1. ______________________________

   2. ______________________________

9. List two (2) tasks that could be accomplished using project-management program.

   1. ______________________________

   2. ______________________________

OBJECTIVE 2.4: Demonstrate the use of disk-operating system commands to perform routine disk file management.

Test Item 002-2.4-01

INSTRUCTION TO STUDENTS: Demonstrate to the instructor the proper commands to perform routine disk file management such as:

1. formatting/initializing a disk
2. making a backup/diskcopy of a given program
3. copying files from one disk to another
4. renaming a file
5. viewing the files on the disk directory
6. erasing/deleting file(s)

Test Item 002-2.4-02

INSTRUCTIONS TO STUDENTS: Explain in a few brief steps how to perform the following operating system commands using the available operating system.

1. Explain how to format or initialize a blank disk on a two-disk drive machine using the proper sequence of command(s).
2. Explain how to make a backup copy of the current operating system disk using the proper sequence of command(s).
3. Explain how to copy one (1) file from Drive A: to Drive B: using the proper sequence of command(s).
4. Explain how to view files on a disk using the proper sequence of command(s).
5. Explain how to erase/delete a file from a disk in Drive B: using the proper sequence of command(s).
6. Explain how to rename a file on a disk using the proper sequence of command(s).

TEST ITEM KEYS

FOR

BASIC FUNCTIONS OF A COMPUTER SYSTEM

Test Item 002.1-01

1. D
2. B
3. C
4. B
5. D
6. A
7. B
8. C
9. A
10. D

Test Item 002-2.1-02

1. 640K
2. Graphics Adapter Card/Port/Card
3. Serial (Printer/Communications) Port/Card
4. 5¼ inch and 3½ inch
5. Keyboard, Screen, CPU, Storage Device(s), Printer
6. Formatted/Initialized
7. Hard/Fixed Disk
8. Laser Printer
9. Operating System
10. Peripheral(s)

Test Item 002-2.2-01

1. Yes
2. Yes
3. No
4. No
5. Yes
6. No
7. No
8. Yes
9. No
10. Yes
11. Yes
12. Yes
13. No
14. No
15. Yes

Test Item 002-2.2-02

Possible answers might include:

Four ways to organize business information:

1. Create employee records using a database program
2. Create customer newsletters
3. Create repetitive documents using word-processing programs that could be merged with addresses for massive mailings
4. Prepare balance sheets with spreadsheet programs
5. Create graphics for sales presentations

Four problems which could be solved using a computer system:

1. Better organization of employee or customer information
2. Save time and money by creating more efficient procedures
3. Faster communications
4. More accurate information
5. Better and faster access to information

Test Item 002-2.3-01

1. D
2. B
3. C
4. C
5. E
6. I
7. H
8. E
9. F
10. D
11. A
12. G
13. G
14. G
15. H
16. F
17. I
18. C
19. E
20. F

Test Item 002-2.3-02

Answers may vary according to the software being taught. Possible answers are:

1. Format
   Copy files
   Rename files
   Backup copies of disk

2. Create letters, memorandums
   Create manuals, memos
   Create labels, envelopes

3. Prepare balance sheets
   Balance checkbook
   Prepare tax information

4. Create customer mailing list
   Create customer account information
   Create employee personnel records

5. Create line charts
   Create overhead transparancies for presentations
   Create pie charts

6. Change printer fonts and sizes
   Create screen windows
   Change screen colors
   Reassign keyboard functions

7. Create newsletters
   Create professional documents that are similar to typeset
   Create graphics

8. Communicate with other computers within a company
   Communicate with other computers outside the company
   Access information from outside databases

9. Organize long-term projects
   Organize short-term projects
   Prepare graphic timeline of projects

Test Item 002-2.4-01

Check List for Proper Management of Files

_____ 1. The student was successful in formatting/initializing a disk using the current operating system.

_____ 2. The student successfully created a backup/diskcopy of the given program.

_____ 3. The student was successful in copying files from one disk to another.

_____ 4. The student was successful in renaming a file.

_____ 5. The student was successful in viewing the files on the disk directory.

_____ 6. The student was successful in erasing/deleting file(s).

Test Item 002-2.4-02

Answers for this test item will vary depending on the type of equipment being used and the current operating system being used.

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COMPETENCIES

FOR
CURRENT ISSUES AND CAREERS

COMPETENCY GOAL 3: The learner will identify various jobs and responsibilities in the information processing field and summarize current issues related to computer usage.

COMPETENCY OBJECTIVES

3.1 Summarize current issues relating to business computer usage.

3.2 Identify the education, personal qualities, and work experience needed in computer-related careers.

STUDENT ACTIVITIES
FOR
CURRENT ISSUES AND CARDS

Planning Notes

1. List ways in which a computer can be used in the office.
2. Describe computer devices you would like to have in your home in the year 2000.
3. Research and discuss the education, personal qualities, work experience, salary and job outlook for computer-related careers.
4. Research magazines and newspapers for current events pertaining to issues about computer-related careers.
5. List the two acts that have been passed to protect privacy of individuals.
6. Define computer ethics.
7. Discuss why computer security is necessary.

EVALUATION MEASURES
FOR
CURRENT ISSUES AND CAREERS

COMPETENCY GOAL 3: The learner will identify various jobs and responsibilities in the information processing field and summarize current issues related to computer usage.

OBJECTIVE 3.1: Summarize current issues relating to business computer usage.

Test Item 003.1-01

INSTRUCTION TO STUDENTS: Read each of the following statements. Determine if each statement is true or false. Record the correct response (true or false) in the blank to the left of each statement.

__________________ 1. Accounts and marketing specialists do not need to feel comfortable in the use and operation of computers because they can rely on professional programmers and analysts.

__________________ 2. Only trained computer professionals use computers.

__________________ 3. To be successful in the business world, the ability to write computer programs is a prerequisite.

__________________ 4. People entering the business community should be able to generate input to the computer system but they do not need skills to interpret output from the computer.

__________________ 5. Learning about computers challenges both physical dexterity and intellect.

Test Item 003.1-02

INSTRUCTION TO STUDENTS: Match the term on the right with its definition on the left. Place the letter of the term(s) in the blank.

_____ 1. Putting data into usable form
_____ 2. Raw data
_____ 3. The composition, revision printing storage of documents such as letters and reports.
_____ 4. The conversion of facts into usual form
_____ 5. Individual sets of intructions used to process data

A. Data Processing
B. Information
C. Word Processing
D. Source Document
E. Program

Test Item 003.1-03

INSTRUCTIONS TO STUDENTS: For each of the functions in Column B, write in the Answer column the letters of all the items from Column A that apply.

Column A	Column B	
A. Data Processing	1. Record/Entering	1. ______
B. Word Processing	2. Coding	2. ______
C. Neither A or B	3. Sorting	3. ______
	4. Revising	4. ______
	5. Calculating	5. ______

OBJECTIVE 3.2: Identify the education, personal qualities, and work experience needed in computer-related careers.

Test Item 003.2-01

INSTRUCTIONS TO STUDENTS: Read each of the following statements. Determine if each statement is true or false. Record the correct response (true or false) in the blank to the left of each statement.

______________ 1. Management level jobs generally are grouped in the same level with those requiring computer operation skills.

______________ 2. The systems analyst is in charge of planning an information processing system and then implementing the plan.

______________ 3. A programmer works from plans made by the systems analyst.

______________ 4. The computer operator should have work habits that concentrate on accuracy and detail.

______________ 5. Because of their excellent language skills, word processing operators are usually promoted to programmer positions.

Test Item 003.2-02

INSTRUCTIONS TO STUDENTS: Listed below are some of the job categories available in information processing. After each job category, fill in the amount of education typically required for holding the job.

1. Information systems management

   ____

2. Systems analyst

   ____

3. Programmer

   ____

4. Computer operator

   ____

5. Data entry operator

   ____

6. Word processing operator

   ____

TEST ITEM KEYS
FOR
CURRENT ISSUES AND CAREERS

Test Item 003.1-01

1. False
2. False
3. False
4. True
5. False

Test Item 003.1-02

1. B
2. D
3. C
4. A
5. E

Test Item 003.1-03

1. A
2. A
3. A
4. B
5. A

Test Item 003.2-01

1. False
2. True
3. True
4. True
5. False

Test Item 003.2-02

1. Bachelor's degree
2. Bachelor's degree
3. Post-secondary technical school diploma or bachelor's degree
4. Two-year technical school or community college degree
5. High school or technical school degree

PARTIAL LISTING OF REFERENCES

FOR
CURRENT ISSUES AND CAREERS

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Skills of the Future. Career Aids, 20417 Nordhoff Street, Department M9, Chatsworth, CA 91311. 1-818-341-2535.

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Business Week's Guide to Careers. Gregg/McGraw Hill, 1221 Avenue of Americas, New York, NY 10020.

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InfoWorld. PO Box 1018, Southeastern, PA 19398.

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COMPETENCIES
FOR
LEADERSHIP SKILLS

COMPETENCY GOAL 4: The learner will demonstrate leadership skills.

COMPETENCY OBJECTIVES

4.1 Identify effective leadership skills developed through Future Business Leaders of America (FBLA).

4.2 Plan, organize, and assume responsibility for effective meetings.

4.3 Exhibit attitudes of respect and cooperation of work relations.

STUDENT ACTIVITIES
FOR
LEADERSHIP SKILLS

	Planning Notes
1. Discuss the goals and purposes of Future Business Leaders of America.	HO1, HO2, HO3 Also see **North Carolina FBLA State Handbook.**
2. Prepare posters, cartoons, or other visual aids which show the purposes or goals of FBLA.	
3. Discuss the qualities of a good leader and members.	TM1, TM2, TM3, and TM4.
4. Discuss the duties and reponsibilities of FBLA officers.	See **State Handbook.**
5. Discuss the purposes of parliamentary procedure and **Robert's Rules of Order.**	TM5, TM6
6. Discuss the principles of parliamentary procedure.	TM7, 8, and 9
7. Prepare an agenda for an organizational meeting at the beginning of the year.	TM10
8. Attend and participate in FBLA meetings.	
9. Participate in the FBLA competitive event(s) related to computer applications and/or parliamentary procedure.	See **North Carolina State Awards Program.**
10. Discuss related articles from **Tomorrow's Business Leader.**	
11. Participate in other school, district, state, and national activities and projects.	

THE GOALS OF FBLA-PBL ARE TO:

- Develop competent, aggressive business leadership
- Strengthen the confidence of students in themselves and their work
- Create more interest in and understanding of American business enterprise
- Encourage members in the development of individual projects which contribute to the improvement of home, business and community
- Develop character, prepare for useful citizenship, and foster patriotism
- Encourage and practice efficient money management
- Encourage scholarship and promote school loyalty
- Assist students in the establishment of occupational goals
- Facilitate the transition from school to work

Fall 1985

NORTH CAROLINA FBLA HISTORY

FBLA grew out of a proposal made by Dr. Hamden L. Forkner of Teachers College, Columbia University, New York City. For his work with the organization, he is now known as the "Father of FBLA." Official sponsorship of FBLA was assumed by the National Council for Business Education at its fall meeting in 1940. The first chapter was organized at Johnson City, Tennessee on February 3, 1942, and the second chapter was organized at St. Albans, West Virginia, on February 5 of the same year. FBLA has grown in the nation to more than 10,000 chapters with approximately 210,000 members. The first National Convention was held in Chicago on May 30-31, 1952.

FBLA-PBL in North Carolina has grown rapidly since the State chapter was organized in the spring of 1954. At that time, there were fewer than twenty chapters in the State. By 1959, the number of FBLA-PBL chapters in North Carolina had grown to seventy-seven. In 1985, there were 264 active chapters in North Carolina with 10,938 members.

Dr. James L. White, School of Business, East Carolina University, Greenville, organized the North Carolina State Chapter. Dr. White served as State Chairman of FBLA-PBL for ten years. Because of his contributions to the State Chapter, the FBLA-PBL Executive Committee named a scholarship in his honor in 1966. The "James L. White Scholarship Awards" are presented annually at the FBLA State Leadership Conference to FBLA graduating high school seniors.

In the spring of 1955, the first FBLA-PBl State Convention was held at East Carolina Unversity. Representing twenty chapters, there were 262 delegates in attendance. At the 1969 FBLA-PBL State Convention held in Durham, there were 750 delegates representing sixty-five chapters. The FBLA-PBL Executive Committee deemed it advisable to operate the two organizations separately, and the separation was made effective July 1, 1969. Approximately 1,600 delegates attended the FBLA State Leadership Conference in 1985 held in Winston-Salem.

Since 1966-67, a State Chairman from the State Department of Public Instruction has worked cooperatively with a State Adviser in providing state-level leadership to North Carolina FBLA. Katherine Brown Meadows served as State Chairman and Joyce Keller served as State Adviser. Effective July 1, 1976, the National FBLA office approved Elizabeth Douglas as the North Carolina State Chairman. In June of 1982, June Atkinson, Chief Consultant for Business and Office Education assumed the role of State Chairman with Rick Bogart serving as State Adviser. Effective June of 1983, Hattie Blue assumed the responsibilities as State Adviser, and she served as State Chairman/State Adviser during the 1984-85 year. At the start of the 1985-86 year Bob Wrisley was appointed to serve as State Adviser while Hattie Blue continued to serve as State Chairman.

During the school year 1975-76, North Carolina FBLA was organized at the district level to include each of the eight educational districts in the state. A fall leadership conference is held in each of the districts and competitive events are held in the spring of each year. An elected district vice-president, district adviser, and board member provide district-level leadership to FBLA.

HO3

FACT SHEET

Future Business Leaders of America-Phi Beta Lambda, Inc.

Future Business Leaders of America-Phi Beta Lambda, Inc.
P.O. Box 17417-Dulles, Washtington, D.C. 20041
703/860-3334

Edward D. Miller, President and Chief Executive Officer

THE ASSOCIATION	Future Business Leaders of America-Phi Beta Lambda is a non-profit, 501(c)(3), educational association made up of students pursuing careers in business education. It is endorsed by the American Vocational Association, Association of Independent Colleges and Schools, National Association of Secondary School Principals, National Business Education Association, and U.S. Department of Education. The association is composed of three divisions: FBLA for high school students; PBL for postsecondary students; and an Alumni Division formed from both groups.
PURPOSE	FBLA-PBL's purpose is to bring business and education together in a positive working relationship. The national organization offers programs and services that create a forum in which students, educators and business people learn about one another. Organizational goals include: • promoting competent, aggressive business leadership. • understanding American business enterprise • establishing career goals • encouraging scholarship • promoting sound financial management • developing character and self-confidence • facilitating the transition from school to work
MEMBERSHIP	There are more than 210,000 active members in over 10,00 chartered chapters throughout the 50 states, American Samoa, Canal Zone, Guam, Puerto Rico, the Virgin Islands and U.S. Department of Defense schools in Europe.
PROGRAMS & SERVICES	*Getting Involved*™ is the ongoing national project of FBLA-PBL. It's designed to help students learn the free enterprise system through a study of entrepreneurship, technology and productivity. *Getting Involved*™ offers suggested chapter activities for each of these free enterprise elements. *National Awards Program.* Since competition is a major part of the free enterprise system, FBLA-PBL, Inc. sponsors the National Awards Program in which students compete in individual, team and chapter events. These events culminate during the National Leadership Conference following competition at the district and state levels. Students conduct projects in the areas of civic service, career development, social awareness and economic education. These activities involve the school, local community, chamber of commerce, business, industry and government. *Youth for Understanding*, an international non-profit student exchange program, in partnership with FBLA-PBL, grants scholarships to qualified members offering them an extended stay in another country while studying some business aspect of the host country. *Future Travel*, the association's full service travel agency, opened its doors for business in January 1983. Although Future Travel is a separate, profit-making entity, the profits realized are returned to FBLA-PBL, Inc., its sole stockholder.
BENEFITS	Publications • *Tomorrow's Business Leader*, a magazine published four times during the school year, is mailed to each dues-paying member and adviser. It offers timely articles on business and professional topics as well as current association news from all regions. • *Hotline*, a newsletter for FBLA and PBL advisers, is published four times during the school year. It is the adult leader's direct link with the national association.

FACT SHEET

page two

**Future Business Leaders of America-
Phi Beta Lambda, Inc.**

- *The Graduate Record*, the newsletter of the Alumni Division, is published three times a year for each alumnus and local chapter. It features alumnotes and news of the national association.

Conferences and Seminars

- *The Management Series* is an in-depth training session for state and national officers and their advisers. This meeting prepares student leaders to assume their full responsibilities as officers, and—since it is held in Washington, D.C.—allows them to visit our nation's Capitol.
- The *National Fall Leadership Conferences* take place in each geographic region of the United States and give students a way to share ideas and reaffirm common goals. They participate in professional development sessions and acquire an understanding of the entire national organization.
- The annual *National Leadership Conference* (NCL) concludes the year's activities and sets the stage for the upcoming school year. The NLC is held each year in a major American city and offers members a chance to get involved in business and leadership workshops, meet corporate executives, elect national officers and engage in competitive events.

STRUCTURE

The national headquarters is located in Reston, Virginia near the nation's capital. A professional staff administers and directs association programs. FBLA-PBL is organized on the local, state and national levels. Local chapters operate under the guidance of teacher/advisers and advisory councils composed of school officials, business people and community representatives. State advisers and committee members coordinate chapter activities and report to the national organization.

The *Board of Directors* is composed of professional educators, local and state advisers, state and local supervisors and national student officers. A President/CEO of the association is appointed by the Board of Directors to direct a paid national staff.

The *National Advisory Council* is a group of individuals from business and industry who support and actively promote FBLA-PBL on the local, state and national levels. The council serves in an advisory capacity to the Board of Directors and the President/CEO.

The *Congressional Advisory Committee*, comprised of U.S. senators and representatives, was formed in 1982 to improve communications with the Congress of the United States, provide direct access to individual legislators who actively support FBLA-PBL, and foster wider recognition of the association's programs.

The *FBLA-PBL Foundation* was formed in the summer of 1982 to extend the association's educational programs, undertake related special projects and establish a secure financial structure.

FUNDING

FBLA-PBL, Inc. is financed almost entirely by dues and local chapter fund raising. Corporate donations, grants and gifts are also important to the organization's financial foundation.

HISTORY

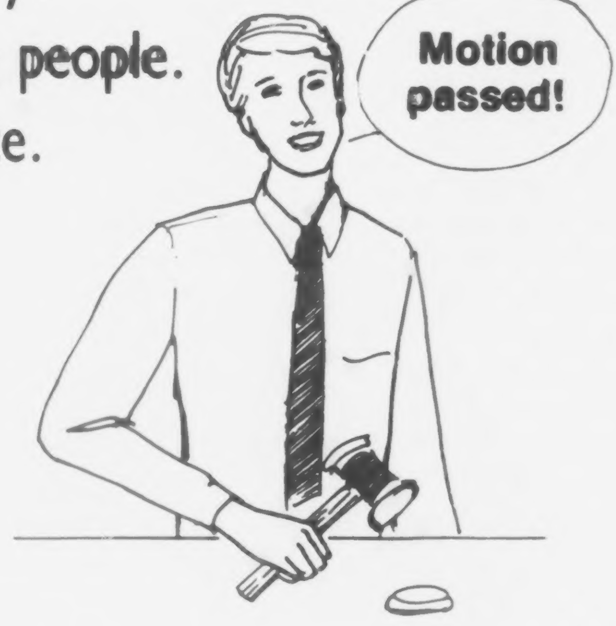
The FBLA concept was developed in 1937 by Hamden L. Forkner of Teacher's College, Columbia University, New York City. In the fall of 1940, official sponsorship of FBLA was accepted by the National Council for Business Education. On February 3, 1942, the first chapter was organized in Johnson City, Tennessee. The association has been recognized by the Freedoms Foundation and the Horatio Alger Awards committee.

Qualities of a Good Chairman

TM1

A Good Chairman Must...

- ...have self confidence.
- ...have a knowledge of parliamentary procedure.
- ...avoid expressing opinion on pending question.
- ...always be democratic.
- ...have a well developed voice.
- ...be able to think quickly.
- ...have a good memory.
- ...be skillful in leading people.
- ...have neat appearance.


Motion passed!

Source: **Parliamentary Procedure Made Easy**
South Carolina Department of Education

Qualities of Good Members

TM2

- Know your organization
- Orderly in conduct
- Participation in the meetings
- Can think quickly
- Know parliamentary procedure
- Attend meetings
- Leave out personalities
- Be able to accept group decisions
- Cooperate as a team

Source: **Parliamentary Procedure Made Easy**
South Carolina Department of Education

TM3

Duties of the Presiding Officer

1. To hold open meetings at appointed times
2. To announce, in sequence, the business that comes before the assembly
3. To recognize members entitled to the floor
4. To put to a vote all questions and announce all results
5. To refuse to recognize frivolous motions
6. To enforce rules of debate and decorum
7. To expedite business
8. To decide all questions of order
9. To respond to valid inquiries of members
10. To authenticate all acts, orders, or proceedings of the assembly
11. To declare the meeting adjourned

Source: **Parliamentary Procedure Made Easy**
South Carolina Department of Education

TM4

The Ideal Presiding Officer:

1. Manifests poise
2. Possesses a strong, clear voice
3. Is reasonably deliberate
4. Manifests mastery of the rules of parliamentary procedure
5. Possesses good judgment
6. Is fair
7. Is tactful

Source: **Parliamentary Procedure Made Easy**
South Carolina Department of Education

The purpose of parliamentary procedure is to promote efficient meetings so that business can be conducted in an orderly manner.

Each member should know:

A. How to take part in a meeting.

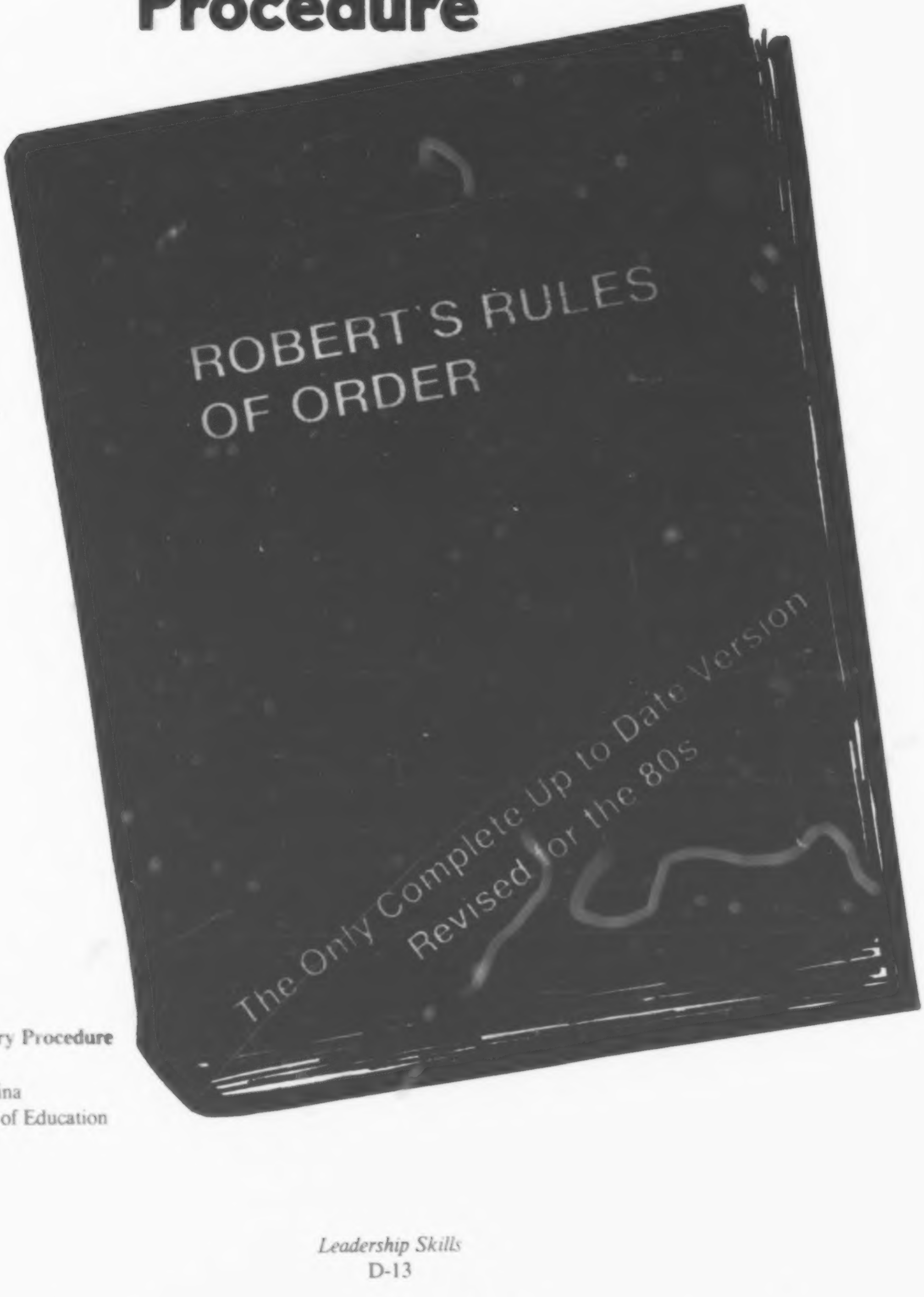
B. How to conduct a meeting.

C. How to protect the rights of members.

A knowledge of parliamentary procedure will provide members with the valuable skills of leadership and participation which can be used in other organizations within the community.

Source: **Parliamentary Procedure Made Easy**
South Carolina Department of Education

Basic Authority on Parliamentary Procedure


ROBERT'S RULES OF ORDER
The Only Complete Up to Date Version
Revised for the 80s

Source: **Parliamentary Procedure Made Easy**
South Carolina
Department of Education

Basic Principles of Parliamentary Procedure

1. Courtesy and justice should be extended to all.
2. Wishes of the majority must be followed.
3. Rights of the minority must be protected.
4. Rights of individual members must be established.
5. Rights of absentees should be protected.
6. Only one motion at a time may be entertained.

Source: **Parliamentary Procedure Made Easy**
South Carolina Department of Education

Parliamentary Procedure

Must be:

1. Purposeful in nature
2. Democratic in action
3. Active in working together
4. Observed in meetings

Source: **Parliamentary Procedure Made Easy**
South Carolina Department of Education

Parliamentary Procedure

Defined:

Parliamentary law as it is followed in any given assembly or organization, together with whatever rules of order the body may have adopted.

Source: **Parliamentary Procedure Made Easy**
South Carolina Department of Education

TM10

Order of Business (Agenda)

Call to Order

Opening Ceremonies (optional)

Reading and Approval of Minutes (major)

Reports of:

- A. Officers*
- B. Boards — (all major)
- C. Standing Committees

Reports of Special Committees (major)

Special Orders (major)

Unfinished Business (major)

New Business (major)

Adjournment

*Treasurer's report is appropriate here.

Source: **Parliamentary Procedure Made Easy**
South Carolina Department of Education

EVALUATION MEASURES
FOR
LEADERSHIP SKILLS

COMPETENCY GOAL 4: The learner will demonstrate leadership skills.

OBJECTIVE 4.1: Identify effective leadership skills developed through FBLA.

Test Item 004.1-01

INSTRUCTIONS TO STUDENTS: Answer the following questions about a leader.

1. What does a leader do?
2. How do you learn to lead?
3. List the 10 commandments of a good leader.
4. List five skills a good leader should possess.
5. How does a successful person view himself/herself?

Test Item 004.1-02

INSTRUCTIONS TO STUDENTS: Rate yourself using Leadership Skills Rating Sheet. If you are not sure how you would rate yourself, talk with a friend, classmate or teacher

LEADERSHIP SKILLS RATING SHEET

PERSONALITY TRAIT	GOOD	SATISFACTORY	NEEDS IMPROVEMENT
Exhibits integrity			
Shows confidence, poise			
Has determination			
Has humility			
Is dependable			
Has loyalty			
Expresses appreciation			
Accepts criticism			
Accepts others points of view			
Is a good listener			
Is genuinely interested in others			
Smiles often			
Makes the other person feel important			
Shows good sportsmanship			
Admits mistakes when made			
Is democratic with others			
Gives extra effort required			

OBJECTIVE 4.2: Plan, organize, and assume responsibility for effective meetings.

Test Item 004.2-01

INSTRUCTIONS TO STUDENTS: Answer the following questions about effective meetings.

1. An effective meeting is one that follows (a, an) ________________ , moves quickly and efficiently, and provides an opportunity for all members to participate.
2. An effective meeting should ________ and ________ on time.
3. An effective meeting should proceed according to ______________________________ .
4. An effective meeting includes well-prepared reports by the ________ , _____________ and committees.
5. An effective meeting allows for maximum participation by ______________ .
6. An effective meeting should proceed with a minimum of active participation by the ______________ .

Test Item 004.2-02

INSTRUCTIONS TO STUDENTS: Read each statement and determine whether it is true or false. Record true or false in the blank to the left.

________ 1. The members have a responsibility during chapter meetings.

________ 2. Only the presiding officer has the responsibility of maintaining order during a meeting.

________ 3. All items for discussion should be directed toward the presiding officer.

________ 4. All items for discussion should relate to topics presented for deliberation.

________ 5. The chapter must use a simple procedure that develops member self-assurance and encourages participation if it is to be truly democratic.

OBJECTIVE 4.3: Exhibit attitudes of respect and cooperation of work relations.

Test Item 004.3-01

INSTRUCTIONS TO STUDENTS: Read each statement and determine whether it is true or false. Record true or false in the blank to the left.

_______ 1. A good member receives all notices and attends meetings regularly.

_______ 2. Members sould participate in the proceedings and deliberations.

_______ 3. Members do not have to follow the rules of the organization.

_______ 4. Members must pay dues and assessments.

_______ 5. Members can not present business, participate in the debates, or vote.

Test Item 004.3-02

INSTRUCTIONS TO STUDENTS: Read each statement and determine whether it is true or false. Record true or false in the blank to the left.

_______ 1. No member can nominate more than one candidate for each office.

_______ 2. Nominations require a second.

_______ 3. Members may vote for anyone who is eligible even though he or she may not have been nominated.

_______ 4. A motion to close nominations requires a two-third vote.

_______ 5. A member should always be recognized by the Chair before speaking.

TEST-ITEMS KEYS

FOR

LEADERSHIP SKILLS

Test Item 004.1-01

1. A leader guides.
   A leader depends on good will.
   A leader develops confidence.
   A leader develops confidence.
   A leader sets the pace.
   A leader says "We."
   A leader says "Let's go."

2. Study the qualities of recognized good leaders.
   Study yourself, picking out your weak and strong points.
   Develop yourself as a good follower. You will learn that he/she who cannot obey cannot command.
   Learn as much as you can about groups in general and what "makes them tick." Make sure you really understand your group.
   Follow a definite plan of training and improvement in leadership.

3.
   1. Believe in something, other than yourself.
   2. Listen to others.
   3. Work in a team, never be a loner.
   4. Be considerate of a different opinion.
   5. Stand for what you believe, even when criticized.
   6. Be a peacemaker above all.
   7. Be patient with other people even though they do not see your way.
   8. Stick to the promises you make.
   9. Work hard as a leader.
   10. Most important: thank people for what they do for you even though you may not receive thanks.

4.
   1. Decision-making skills
   2. Communication skills—verbal and written
   3. Parliamentary procedure skills
   4. Public relations skills
   5. Listening and understanding skills
   6. Creative problem-solving ability
   7. The skill to use questions in developing group thinking
   8. The skill to use humor effectively

5.
   1. Is self-confident
   2. Has self-acceptance
   3. Has a positive attitude
   4. Is an efficient and effective reader
   5. Has confidence in his ability
   6. Has a high opinion of himself/herself
   7. Is optimistic about his/her future
   8. Needs fewer favorable evaluations from others
   9. Feels that he/she works hard
   10. Is liked by others

Test Item 004.1-02

Checklist for Leadership Skills Rating Sheet
______ Is assignment complete

Test Item 004.2-01

1. Agenda
2. Open and close
3. Parliamentary procedure
4. Secretary, treasurer
5. Members
6. Advisor

Test Item 004.2-02

1. True
2. False
3. True
4. True
5. True

Test Item 004.3-01

1. True
2. True
3. False
4. True
5. False

Test Item 004.3-02

1. True
2. False
3. True
4. True
5. True

PARTIAL LISTING OF REFERENCES
FOR
LEADERSHIP SKILLS

TEXTS

Bender, Guider, and Woodin. **Mastering Parliamentary Procedure** G. A. Biery, 558 Richmond Street, Zanesville, OH 43701. 1-614-457-8544. 1983.

FBLA-PBL. **FBLA-PBL Curriculum Integrations Activities.** FBLA-PBL, 1908 Association Drive, Reston, VA. 22091. 1-703-998-3334. 1989.

National Association of Parliamentarians. **Pointers on Parliamentary Procedure.** National Association of Parliamentarians, Kansas City, MO. 1984.

North Carolina Department of Public Instruction. **Guide For Integrating FBLA Into The Classroom.** Business and Office Education. Education Building, Rm. 592, Raleigh, NC 27603-1712.

North Carolina Department of Public Instruction. **North Carolina FBLA State Handbook** and **North Carolina State Awards Program.** Business and Office Education. Education Building, Rm. 592, Raleigh, N.C. 27603-1712. 1-919-733-7985. 1988.

Oklahoma State Department of Vocational and Technical Education. **Learn, Grow, Become: FBLA Edition.** Contact: NC State Department of Public Instruction, Business and Office Education, Education Building, Rm. 592, Raleigh NC 27603-1712. 1-919-733-7985. 1988.

Robert, Henry M. **Robert's Rules of Order, Newly Revised.** Scott, Foresman and Company. Glenview IL 60025. 1981.

Shinn, George. **Leadership Development,** Second Edition. Gregg Division/McGraw-Hill Book Company. 1221 Avenue of the Americas. New York NY, 10020. 1-800-334-7344. 1986.

South Carolina Department of Education. **Parliamentary Procedure Made Easy.** South Carolina Department of Education, Columbia SC 29201. 1983.

University of Missouri **Parliamentary Procedure Study Manual and Tests** and **Parliamentary Procedure for Youth Organizations.** Instructional Materials Laboratory, 10 Industrial Education Building, University of Missouri — Columbia, Columbia MO 65211. 1-314-882-2883. 1989.

SOFTWARE

Parliamentary I and Parliamentary II. American Vocational Association. Department RC 289, 1410 King Street, Alexandria VA 22314. 1-800-826-9972.

VISUAL AIDS

Parliamentary Procedure Transparencies and **Slides.** Instructional Materials Laboratory, 10 Industrial Education Building, University of Missouri-Columbia, Columbia MO. 1-312-882-2883.

MAGAZINES

FBLA-PBL. **Tomorrow's Business Leader.** FBLA-PBL, 1908 Association Drive, Reston VA 22091. 1-703-998-3334.

TABLE OF CONTENTS
FOR
DATABASE MANAGEMENT

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COMPETENCIES
FOR
DATABASE MANAGEMENT

COMPETENCY GOAL 5: The learner will use a database-management program.

COMPETENCY OBJECTIVES

5.1 Identify the advantages of using a database program.
5.2 Recognize database terms.
5.3 Identify several applications for which a database program can be used.
5.4 Prepare data to be used in a database file.
5.5 Create a database file.
5.6 Enter, update, add, and delete data in the file.
5.7 Search the database for specific information.
5.8 Print database reports.
5.9 Store and retrieve database file.

STUDENT ACTIVITIES
FOR
DATABASE MANAGEMENT

Orientation to Database	**Planning Notes**
1. Discuss the advantages of using a database program.	TM1
2. Discuss terminology as it relates to database.	HO1, TM2, TM3
3. List several applications for which a database program can be used.	TM1
4. Load the program and observe the options on its main menu.	
5. Use appropriate control function keys to perform primary operations, such as selecting and canceling menu options.	
6. Walk through main menu and submenu options to become acquainted with the organization of the program and its main functions. Use a data file that has already been prepared on disk for this purpose.	

Search for Data in a File

1. Use appropriate commands or menu selections to search for a particular record in the file that has already been stored on a disk by the instructor.
2. Retrieve selected records using various criteria allowed by the program, such as: single-field match, multiple field "and" and "or" criteria, partial match or wildcard criterion, "greater than," "less than," "range" criteria and "not" criterion.
3. Describe any limitations in the way the program allows the user to search for data in the files and how such limitations might affect the design of records and files.

Updating a File

1. Search a stored file for a particular record that needs to be updated.
2. Enter new data into one or more fields in an existing record.
3. Save the updated record on disk.
4. Change the contents of selected data fields in existing records.
5. Correct mistakes made in entering new data.
6. Delete selected records from the file.

Sorting and Printing

Planning Notes

1. Use appropriate commands and menus to print selected records from a stored file.
2. Use appropriate commands and menus to sort a collection of records into a new sequence before printing the records.
3. Use appropriate commands and menus to specify selected fields to be printed from a collection of records and to specify the format of the printed report.
4. Observe and discuss characteristics and limitations of the program for sorting records, (e.g., number of levels, treatment of upper and lower case).
5. Observe and discuss limitations of the program for formatting reports. Identify ways in which the capabilities for formatting and printing would affect design of the files and records (e.g., sequencing of fields, field headings).

Designing and Redesigning a File

1. Working individually or with a small group, design a small file that is of interest to you.
   —Make a handwritten list of the data items to include in each record.
   —Identify two or three ways in which the data will be used including the layout of printed reports desired from the file and the kinds of criteria that will be used to search the file.
   —Identify sources of the data to be entered into the file, such as paper records and reference books.
2. Prepare a disk to use for storing the file.
3. Use appropriate commands and menus to define the file to the program.
   —Name the file.
   —Enter the design of the records including field definitions, lengths and headings.
   —Use the editing capabilities of the program to make modifications and corrections to the design before storing it.
   —After storing the design of the records and file, use available program features such as "Change Design" option to make improvements in the design of the file.
4. Enter data for a few records in the file; save the file on disk.
5. Print the file.

TM2
TM3

Managing Files and Disks

Planning Notes

1. Make a backup copy of your file on a second disk.
2. Write approriate identifying information on the external labels of the disk.
3. Make a plan for updating the file (e.g., frequency of update procedures for updating and maintaining backup copies).
4. Prepare written instructions and procedures for a person who would enter and/or retrieve data from your file. Establish controls over the accuracy of your data and files.

DATABASE COMPETENCY CHECKLIST

HO1

Record the date you successfully demonstrated competency on each of the following:

I. FILE MAINTENANCE/DOS
- A. Boot DOS ________
- B. Format a data disk ________
- C. Do a diskcopy/back up ________
- D. Verify a disk ________
- E. Use the directory/catalog ________
- F. Print the directory/catalog ________
- G. Boot the application software ________
- H. Save a file ________
- I. Rename a file ________
- J. Exit the application software ________

II. OPEN/RETRIEVE/QUIT
- A. Open and name a file ________
- B. Retrieve a file ________
- C. Quit/Exit a file ________

III. CURSOR MOVEMENT
- A. Use arrow keys ________
- B. Use GOTO functions ________
- C. Use special key combinations ________

IV. DEFINE DATABASE STRUCTURE
- A. Name the file ________
  - 1. Enter field name ________
  - 2. Enter field type/attribute ________
  - 3. Enter field size/length ________
  - 4. Enter decimal places ________

V. DATA ENTRY
- A. Enter characters ________
- B. Enter values/numbers ________
- C. Enter dates ________
- D. Enter time ________
- E. Enter logic ________
- F. Correct data entry errors ________

VI. FORMAT CELLS
- A. Format to currency ________
- B. Format to percentage ________
- C. Format to ________
- D. Format to floating point ________

VII. EDIT/REVISE/CHANGE
- A. Modify structure ________
- B. Delete records ________
- C. Delete fields ________
- D. Add records ________
- E. Add fields ________
- F. Insert fields ________
- G. Insert/Append records ________
- H. Edit records/fields ________
- I. Clear/Erase entire template ________
- J. Replace data ________

VIII. SEARCH FIND/LOCATE
- A. Single search field/criterion ________
- B. Multiple search fields/criteria ________

IX. SORT/INDEX
- A. Sort, alphabetic/ascending ________
- B. Sort, descending ________
- C. Use one sort key ________
- D. Use multiple sort keys ________
- E. Index a file ________

VII. EDIT/REVISE/CHANGE
- A. Modify structure ________
- B. Delete records ________
- C. Delete fields ________
- D. Add records ________
- E. Add fields ________
- F. Insert fields ________
- G. Insert/Append records ________
- H. Edit records/fields ________
- I. Clear/Erase entire template ________
- J. Replace data ________

X. SPECIAL COMMANDS/FEATURES
- A. Use password protection ________
- B. Use calculated fields ________

XI. DISPLAY/LIST DATA NON—REPORT FORMAT

A. Display/List all to screen ________
B. Display/List all to printer ________
C. Display/List selected data

D. Display/List selected data to printer ________

XIII. LABEL/REPORT GENERATION

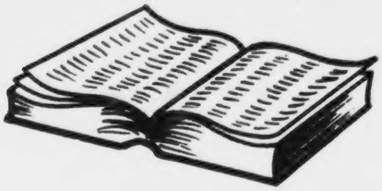
A. Print labels ________
B. Print a report with totals ________
C. Print a report with subtotals ________
D. Print a report with selected fields or criteria ________
E. Enter a report heading ________
F. Layout a report in an appropriate format ________
G. Print a report in sorted order________
H. Print a report to the screen___

XIII. PRINTING

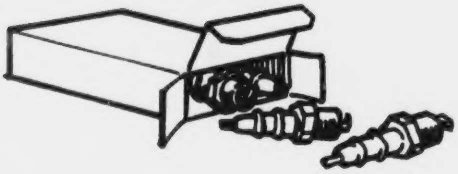
A. Turn on/off compressed print________
B. Turn on/off ________
C. Use print screen ________

TM1

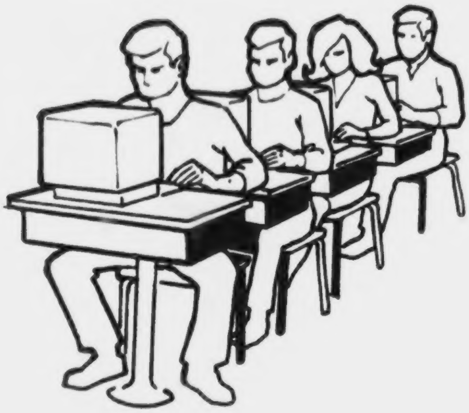
A DATA BASE IS INFORMATION WHICH IS KEPT IN LISTS



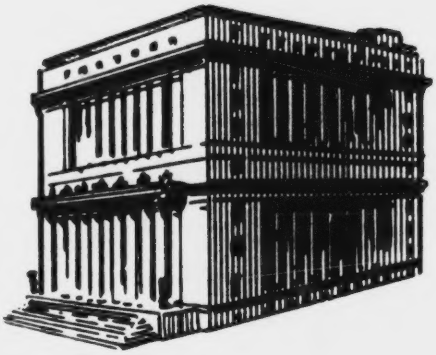
TELEPHONE DIRECTORY



INVENTORY LISTS



LIST OF STUDENTS IN A CLASS



LIST OF CLASSES OFFERED BY AN INSTITUTION

Source: **Applications Using the Personal Computer**, South-Western Publishing Company, 1988.

A RECORD IS ALL INFORMATION FOR ONE FILE.

FIRST, MIDDLE, AND LAST NAME:	Marie Janice Lewis
STREET ADDRESS:	268 San Marin Drive
CITY, STATE, AND ZIP:	Wichita KS 68510
PHONE NUMBER:	316-897-5219
BIRTHDATE:	11/2/68
HEIGHT:	5′7″
WEIGHT:	130
SCHOOL:	Wichita East High School
SOCIAL SECURITY NUMBER:	452-38-9837

Source: **Applications Using the Personal Computer**, South-Western Publishing Company, 1988.

Fields

1. Character (Alphanumeric)
    - Contains information comprised mainly of alphabetical letters
    - Can contain numbers, but generally not for computation

2. Logical
    - Contains one of two values
    - Is either true or false

3. Numeric
    - Always in the form of numbers
    - Can be used in computations

Source: **Microcomputer Business Applications**, Mid-Atlantic Vocational Curriculum Consortium, Inc., 1986.

EVALUATION MEASURES
FOR
DATABASE MANAGEMENT

COMPETENCY GOAL 5: The learner will use a database-management program.

OBJECTIVE 5.1: Identify the advantages of using a database program.

Test Item 005-5.1-01

INSTRUCTIONS TO STUDENTS: Read each of the following statements about the advantages of using a database program. List three reasons why a database system would be helpful.

1. A database combines all the files of a company or institution. Using a school system as an example, list three reasons why a database system would be helpful.

   A. ______________________________

   B. ______________________________

   C. ______________________________

2. The band director of your school feels the need to computerize his records. List three reasons why a database system would be helpful.

   A. ______________________________

   B. ______________________________

   C. ______________________________

3. The school nurse at an elementary school has been instructed to submit her records on immunization to the administration to be placed in the main computer's database. List three reasons why a database system would be helpful.

   A. ______________________________

   B. ______________________________

   C. ______________________________

4. A policeman has just pulled a speeding vehicle over. List three reasons why a database system would be helpful to the policeman.

   A. ______________________________

   B. ______________________________

   C. ______________________________

5. The local pharmacist has decided to computerize his accounts. List three reasons why a database system would be helpful.

A. ____________________

B. ____________________

C. ____________________

Test Item 005-5.1.1-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements about database programs. Determine if each of the statements is true or false. Record the correct response (true or false) in the blank to the left of each statement.

__________ 1. Database-management programs are used to store information which has commonly been stored in a file cabinet.

__________ 2. One advantage of using a database management system is to prevent redundancy of data.

__________ 3. Most database-management programs allow the user to generate mailing lists and labels.

__________ 4. A database-management program cannot perform tasks quicker than people can.

__________ 5. The database-management program will allow an organization to combine all of its files.

OBJECTIVE 5.2: Recognize database terms.

Test Item 005.5.2-01

INSTRUCTIONS TO STUDENTS: Match the following terms with their definitions. Record the correct definition (letter) in the blank to the left of the term.

TERMS

________ 1. Data

________ 2. Database

________ 3. Store

________ 4. Update

________ 5. Search

________ 6. Editing

________ 7. Format

________ 8. Record

________ 9. Menu

________ 10. Sorting

________ 11. Retrieve

________ 12. Field

DEFINITIONS

A. A set of data positions treated as a unit (Ex. Name)

B. To find and select information stored

C. To manually interrupt the operation of a computer routine

D. A general term used to describe names, numbers, facts, letters, symbols, etc.

E. Process of arranging records into a particular order, such as alphabetical or numerical

F. A set of related data fields treated as a unit

G. Combines all the files of a company

H. To put information into storage and also to retain data in storage usually on a disk

I. Process that allows removal of words, characters, or larger pieces of text, insertion of new text, and movement of text from one position to another

J. Feature that allows changes to be made in a record

K. Feature that tells the computer to look for a specific record

L. A predetermined method of arranging characters, lines, punctuation, etc.

M. A list of options

Test Item 005-5.2-02

INSTRUCTIONS TO STUDENTS: State the correct answer in the blanks provided for the following statements.

1. A general term used to describe numbers, facts, letters, symbols, names, etc. is ________________ .

2. A ______________________ combines all the files of a company.

3. To put information into storage and also retain it in storage on a disk is referred to as ____________________ a document.

4. A feature that allows changes to be made in a record is called __________________ .

5. A feature that tells the computer to look for a specific record is called ____________________ .

6. ______________ is the process that allows removal of characters, words, or larger pieces of text, insertion of new text, and movement of text from one position to another.

7. A predetermined method of arranging characters, lines, punctuation, etc. is called ____________________

8. A set of related data fields treated as a unit is referred to as a __________________ .

9. The process of arranging records into a particular order, such as alphabetical or numerical is called ______________ .

10. A list of options is called a ________________ .

11. To find and select information that is stored is called ________________ .

12. A _____________ is a set of data positions treated as a unit.
Example: Name

OBJECTIVE 5.3: Identify several applications for which a database program can be used.

Test Item 005-5.3-01

INSTRUCTIONS TO STUDENTS: Read each of the following statements about database applications. List three examples for each statement that would apply.

1. List three types of recordkeeping a database-management system can perform.

   A. ______________________________

   B. ______________________________

   C. ______________________________

2. List three examples in your home where a database-management system would be helpful.

   A. ______________________________

   B. ______________________________

   C. ______________________________

3. List three examples in your school where a database-management system would be helpful.

   A. ______________________________

   B. ______________________________

   C. ______________________________

4. List three examples in a hospital where a database-management system would be helpful.

   A. ______________________________

   B. ______________________________

   C. ______________________________

5. List three examples in the military where a database-management system would be helpful.

   A. ______________________________

   B. ______________________________

   C. ______________________________

Test Item 005-5.3-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements about database applications. List three examples of how a database-management system would be helpful.

1. Computers are able to test new drugs.

   A. ______

   B. ______

   C. ______

2. A computer program defeats all champion chess players.

   A. ______

   B. ______

   C. ______

3. Microcomputers replace books as the primary reading device.

   A. ______

   B. ______

   C. ______

4. Nursing and personal care facilities become computerized.

   A. ______

   B. ______

   C. ______

5. Hotels, motels, and tourist resorts are becoming computerized.

   A. ______

   B. ______

   C. ______

OBJECTIVE 5.4: Prepare data to be used in a database file.

Test Item 005-5.4-01

INSTRUCTIONS TO STUDENTS: The following checklist is provided to ensure correct and adequate information is provided for in a database. Check each item as materials or ideas are gathered.

I. Information to Be Contained in a Database

  A. File Name ________
  B. Fields to be Used ________
  C. Length of Fields (if necessary) ________

II. Reports to Be Generated

  A. Sketch Out Reports to be Generated ________
  B. Determine Sorting ________

III. After Reports Are Sketched, Determine If Information Provided is Essential. ________

Test Item 005-5.4-02

INSTRUCTIONS TO STUDENTS: In the blanks provided, indicate the file names and the field names to be used in the following.

As secretary of your Future Business Leaders of America organization, you have been assigned the task of planning a directory of all the members. The directory should contain not only the names of each member but also the grade level, phone number, address, birth date, business subjects completed, and business subjects currently enrolled in.

FILE NAMES	FIELD NAMES
1. ____________________	A. ____________________
2. ____________________	B. ____________________
3. ____________________	C. ____________________
	D. ____________________
	E. ____________________
	F. ____________________
	G. ____________________
	H. ____________________

OBJECTIVE 5.5: Create a database file.

Test Item 005-5.5-01

INSTRUCTIONS TO STUDENTS: Create a database that includes the given fields.

Listed below are the field names for a database. Use the database program available and create a database that includes the given fields. Proofread very carefully. An error made at the beginning repeats itself throughout the required printouts. Depending on the database program being used, you may need to shorten or abbreviate field headings.

Student ID#
Last Name
MI
First Name
Address
City
State
ZIP
Birth Date
Sex
Grade Level
Advisor
Room #
Home Phone #
Grade Status-Passing (Y/N)

OBJECTIVE 5.6: Enter, update, add, and delete data in the file.

Test Item 005-5.6-01

INSTRUCTIONS TO STUDENTS: Using the database created, enter the records listed below.

RECORD #1	RECORD #2	RECORD #3
89	90	99
Vic. L. Jones	Omar O. Anderson	Mary Q. Ducky
31 James Circle	45 North Main Street	45 Farm Pond Lane
Charlotte, NC 28105	Charlotte, NC 28204	Charlotte, NC 28215
70/01/09, Male	69/02/03, Male	68/03/04, Female
11, Williamston, 606	12, Pharr, 701	12, McNeely, 700
554-0090	333-3223	554-7890
Yes	Yes	Yes

RECORD #4	RECORD #5	RECORD #6
100	105	108
Lyla L. James	Lauren J. Duncan	Stacey M. Lanning
50 Mason Drive	45 Hampshire Road	Indian Tree Rd.
Harrisburg, NC 28105	Matthews, NC 28111	Matthews, NC 28112
69/04/05, Female	71/05/06, Female	69/09/08, Female
12, Kort, 714	10, Faulkner, 711	10, Hairston, 709
334-1221	544-9000	336-0000
No	Yes	No

INSTRUCTIONS TO STUDENTS: Using the appropriate commands, update the following entries.

Vic Jones' address has changed to 13 Jamestown Road.

Omar Anderson's phone number has been changed to 333-2233.

Mary Ducky's advisor has changed to Faulkner.

Lauren Duncan has been moved to the 12th grade. Her advisor is now Ms. Kort in Room 714.

INSTRUCTIONS TO STUDENTS: Using the appropriate commands, add the following record to the database.

RECORD #7

110
Melvin G. Gray
12 Stormy Lane
Charlotte, NC 28211
70/01/01, Male
11, McNeely, 700
333-3229
No

INSTRUCTIONS TO STUDENTS: Using the appropriate commands, delete the following record from the database.

RECORD #5

105
Lauren J. Duncan
45 Hampshire Road
Matthews, NC 28111
71/05/06, Female
10, Faulkner, 711
544-9000
Yes

OBJECTIVE 5.7: Search the database for specific information.

Test Item 005-5.7-01

INSTRUCTIONS TO STUDENTS: Using the database created, make a search of the current database for the following information using the commands and operations specific to the software package.

SEARCH #1

Search the full names of the students who are passing under the current database.

SEARCH #2

Search the full names of all students who are not passing under the current database.

SEARCH #3

Search the full names, complete addresses, and advisor of all students in the 12th grade in the current database.

SEARCH #4

Search the full names, birth date, and sex of all female students in the current database.

OBJECTIVE 5.8: Print database reports.

Test Item 005-5.8-01

INSTRUCTIONS TO STUDENTS: Using the same search items above, print out the records found for each search item. Label each printout as SEARCH #1, SEARCH #2, SEARCH #3, SEARCH #4.

OBJECTIVE 5.9: Store and retrieve database files.

Test Item 005-5.9-01

INSTRUCTIONS TO STUDENTS: Using the appropriate command for saving, save the database created. After saving the database, remove the file from the computer's memory and retrieve the same file to make sure it is saved.

OBJECTIVE 5.5: Create a database file.

Test Item 005-5.5-02

INSTRUCTIONS TO STUDENTS: Create a database that includes the given fields.

Listed below are the field names for a database. Use the database program available and create a database that includes the given fields. Proofread carefully—an error made at the beginning repeats itself throughout the required printouts. Depending on the database program being used, you may need to shorten or abbreviate field headings.

NAME
BIRTH MONTH
FAVORITE FOOD
FAVORITE SPORT
FAVORITE COLOR
SEX

OBJECTIVE 5.6: Enter, update, add and delete data in the file.

Test Item 005-5.6-02

INSTRUCTIONS TO STUDENTS: Using the database created, enter the records listed below.

RECORD #1	RECORD #2	RECORD #3
Ore, Keith	Moore, Ernest	Boyd, Angie
September	July	March
Pizza	Pizza	Pizza
Basketball	Basketball	Basketball
Red	Red	Blue
Male	Male	Female

RECORD #4	RECORD #5	RECORD #6
Bailey, Katina	Keys, Kimberly	Miller, Brian
December	March	May
Pizza	Pizza	Pizza
Basketball	Basketball	Cross Country
Blue	Blue	Blue
Female	Female	Male

RECORD #7	RECORD #8	RECORD #9
Woolard, Renae	Icard, Pattie	Hampton, Scott
December	June	August
Seafood	Shrimp	Pizza
Basketball	Swimming	Baseball
Pink	Blue	Blue
Female	Female	Male

RECORD #10	RECORD #11	RECORD #12
Greenwood, Brian	Bergevin, Daniel	Tucker, Yachea
December	May	January
French Fries	Pizza	Pizza
Baseball	Soccer	Track
Blue	Blue	Blue
Male	Male	Female

RECORD #13	RECORD #14	RECORD #15
Moore, Ken	Leary, Jason	Gunn, John
October	October	January
Pizza	Pizza	Pizza
Honda Racing	Soccer	Volleyball
Red	Black	Black
Male	Male	Male

RECORD #16	RECORD #17	RECORD #18
Somers, Valinda	Parvin, Gus	Peebles, Willie
August	August	December
Pizza	Pizza	Pizza
Volleyball	Tennis	Volleyball
Pink	Red	Red
Female	Male	Male

INSTRUCTIONS TO STUDENTS: Using the appropriate commands, update the following entries.

John Gunn's favorite food is spaghetti.

Willie Peeble's favorite color has changed to blue.

INSTRUCTIONS TO STUDENTS: Using the appropriate commands, add the following record to the database.

Ann Jones
April
Turkey
Basketball
Gray
Female

INSTRUCTIONS TO STUDENTS: Using the appropriate commands, delete the following record from the database.

RECORD #8

Pattie Icard
June
Shrimp
Swimming
Blue
Female

OBJECTIVE 5.7: Search the database for specific information.

Test Item 005-5.7-02

INSTRUCTIONS TO STUDENTS: Using the database created, make a search of the current database for the following information using the commands and operations specific to the software package.

SEARCH #1

Search the names of the students whose favorite food is pizza.

SEARCH #2

Search the names of the students whose favorite color is red.

SEARCH #3

Search the names of the students whose favorite sport is tennis.

SEARCH #4

Search the names of the students whose favorite food is pizza, favorite color is red, and favorite sport is tennis.

OBJECTIVE 5.8: Print database reports.

Test Item 005-5.8-02

INSTRUCTIONS TO STUDENTS: Using the same search items above, print out the records found for each search item. Label each printout as SEARCH #1, SEARCH #2, SEARCH #3, SEARCH #4.

OBJECTIVE 5.9: Store and retrieve database files.

Test Item 005-5.9-02

INSTRUCTIONS TO STUDENTS: Using the appropriate command for saving, save the database created. After saving the database, remove the file from the computer's memory and retrieve the same file to make sure it is saved.

KEY TO TEST ITEMS
FOR
DATABASE MANAGEMENT

1.
A. To add or delete data easily
B. To search for a file easily
C. To update or change data easily

2.
A. To keep inventory of all music
B. To keep inventory of all equipment
C. To keep records on all band members

3.
A. To ensure safety of all children
B. To ensure all children have proper immunizations
C. To locate any child who does not have proper record

4.
A. To provide information concerning previous violations
B. To allow officer to be prepared if prior violations exist
C. To assist with stolen vehicles

5.
A. To ensure protection against improper refills
B. To allow pharmacist to know if allergic reactions occur
C. To keep inventory of all medicines

Test Item 005-5.1-02

1. True
2. True
3. True
4. False
5. True

Test Item 005-5.2-01

1. D
2. G
3. H
4. J
5. K
6. I
7. L
8. F
9. M
10. E
11. B
12. A

Test Item 005-5.2-02

1. Data
2. Database
3. Storing
4. Update
5. Search
6. Editing
7. Format
8. Record
9. Sorting
10. Menu
11. Retrieve
12. Field

Test Item 005-5.3-01

1.
A. Add or delete data
B. Print all or part of the data
C. Sort data in a particular order

2.
A. Keeping recipes
B. Keeping inventory of household appliances
C. Keeping lists of names and addresses for mailings

3.
A. School personnel records
B. School student information
C. Grades

4.
A. Inventory of supplies and equipment
B. Record of personnel
C. Record of medications for patients

5.
A. Inventory of supplies and equipment
B. Record of names and addresses
C. Lists of allies and enemies

Test Item 005-5.3-02

1.
A. Keep records of related drugs
B. Keep records of unsuccessful attempts
C. Keep records of test results

2.
A. Names and addresses of champions
B. Number of defeats and wins
C. Strategies used

3.
A. Authors of books
B. Titles of books
C. Subjects of books

4.
A. Names of facilities
B. Locations of facilities throughout the nation
C. Kinds of care offered

5.
A. Listings of all hotels, motels, resorts
B. Locations of all hotels, motels, resorts
C. Costs of all hotels, motels, resorts

Test Item 005-5.4-01

This will vary according to database chosen by student.

Test Item 005-5.4-02

1. FBLA Directory
2. FBLA Members
3. Student Organization

A. Name
B. Grade Level
C. Phone Number
D. Address
E. Birthdate
F. Business Completed
G. Business Current
H. Homeroom Teacher

Test Item 005-5.5-01

Checklist

________ Opened and named a file
________ Entered field names
________ Entered field size (if necessary)

Test Item 005-5.6-01

Checklist

________ Entered characters
________ Entered values
________ Entered dates
________ Corrected data entry errors

Test Item 005-5.7-01

Checklist

________ Edited records
________ Deleted records
________ Replaced data
________ Added records

Test Item 005-5.8-01

Checklist

________ Single searched fields
________ Multiple searched fields

Test Item 005-5.9-01

Checklist

________ Saved the file
________ Retrieved the file
________ Cleared/Erased entire file

Test Item 005-5.5-02—005-5.9-02

See Checklist for Set 1.

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COMPETENCIES
FOR
SPREADSHEET

COMPETENCY GOAL 6: The learner will use a spreadsheet program.

COMPETENCY OBJECTIVES

6.1 Identify the advantages of using a spreadsheet program.
6.2 Recognize spreadsheet terms.
6.3 Identify several applications in which spreadsheet programs can be used.
6.4 Enter labels, values and formulas into spreadsheet cells.
6.5 Enter simple mathematical and statistical functions.
6.6 Demonstrate the replicate or copy command for both labels and formulas.
6.7 Insert, delete, and move rows, columns and blocks.
6.8 Change column width.
6.9 Divide the screen into windows.
6.10 Fix titles horizontally and/or vertically.
6.11 Format both label and numeric entries.
6.12 Describe the logical operators AND, OR, NOT.
6.13 Demonstrate the use of recalculation.
6.14 Edit the contents of a cell.
6.15 Print all or selected portions of spreadsheets.
6.16 Print cell contents of spreadsheets.
6.17 Store and retrieve spreadsheet files.

STUDENT ACTIVITIES
FOR
SPREADSHEET

Orientation to Spreadsheet	Planning Notes
1. Discuss the advantages of using a spreadsheet program.	TM1
2. Define spreadsheet terms.	TM2, HO1
3. List several applications in which spreadsheet programs can be used.	TM1
4. Load the spreadsheet software.	
5. Identify the overall spreadsheet characteristics: cell structure, overall spreadsheet size in relation to monitor "window", and status area versus spreadsheet area.	
6. Move the cursor to any given cell.	
7. Enter data into a cell: label, value, and expression.	TM3
8. Change a value: automatic recalculation.	
9. Discriminate between raw data and calculated data.	
10. Invoke the command menu. —Introduce structure and purpose of commands.	
11. Retrieve a prepared spreadsheet. —Clear the screen. —Transfer information from disk to memory. —Store and retrieve spreadsheet files.	
12. Enter data into a prepared spreadsheet.	
13. Identify the static and dynamic content of a worksheet.	

Building a Spreadsheet:
Primary Commands and Functions

1. Enter data.
   - —Enter a series of labels.
   - —Enter a series of values.
   - —Enter a series of simple expressions.
   - —Enter a simple mathematical and statistical function (e.g., SUM, AVERAGE, MAX, MIN).

2. Identify the types of replication or copying permissible.

3. Use the REPLICATE or COPY command for tables: single cell to cell, cell to range of cells, range of cells to block, and block to block (if permitted).

4. Use the REPLICATE or COPY command for expressions. Use various relative/no change possibilities: single cell to cell, cell to range of cells, range of cells to range of cells, range of cells to block, and block to block (if permitted).

Modifying and Displaying the Worksheet

1. Select and use a variety of commands to reformat the spreadsheet and change the appearance of the screen.
   - —Insert columns and rows.
   - —Delete columns and rows.
   - —Move columns and rows and blocks.
   - —Change column width.
   - —Use the window command.
   - —Use the titles command.

2. Format label entries: cell formats, column/row formats, and sheet formats.

3. Format numerical entries: cell formats, column/row formats, and sheet formats.

Planning Notes

TM3

TM5

TM6

TM7

Advanced Functions and Commands

Planning Notes

1. Use the logical operators in a specific context: NOT, AND, OR.
2. Create and use data table.
   —Use the LOOKUP function to look for data.
3. Replicate/copy cells containing the above functions.
4. Use cursor-pointing method to work efficiently.
   —Search diskette for file names.
   —Point to established expressions and functions.
5. Identify and use the recalculation options.
   —Define order of recalculation.
   —Change the order of recalculation.
   —Identify problems with circular and forward references.
   —Change from automatic to manual recalculation.
6. Edit the contents of a cell with prior data.

Printing and Documentation

Planning Notes

1. Utilize a selected printer to print a finished spreadsheet.
   —Print the entire spreadsheet.
   —Print selected portions of the sheet.

2. Identify required printer controls: line feed, character fonts, and printer/paper widths.

3. Identify and utilize appropriate documentation requirements and procedures.
   —Use spreadsheet remarks: author, purpose, date, data entry procedures, printing procedures, etc.
   —Preserve spreadsheet printout in report cover.

   —Print cell formulas.

4. Identify and use alternate means for data preservation: backup disk copies, hard-copy printout, and formula printout.

Advanced Topics (Optional)

1. Identify the problem-solving capabilities of the spreadsheet program.

2. Use multiple, NOT, AND, OR functions in combination with other functions to solve posed problems.

3. Perform appropriate procedures to save spreadsheet data for use in other software packages/programs.
   —Move data from one file to another
   —Use storage and information transfer options.
   —Demonstrate relationship with plotting packages.
   —Interface with database, word processing, and communications software.
   —Use file consolidation procedures.
   —Interface with other spreadsheet programs.

4. Define the purpose of each software command.

Template Creation and Project Development (Optional): Solving an Actual Problem

Planning Notes

1. Solve assigned spreadsheet problem.
2. Identify and utilize concepts in template creation: appearance of sheet layout, efficiency of calculation, ease of use, and conservation of computer memory.
3. Identify the sequence of procedures required to implement and document a major spreadsheet project in a professional manner.
4. Plan a spreadsheet layout using paper and pencil method.
5. Develop a spreadsheet.
   —Implement the plan on the computer.
6. Test the spreadsheet.
   —Enter the test data.
7. Modify the spreadsheet.
8. Document the spreadsheet.

HO1

CHECKSHEET

FOR SPREADSHEETS

KEYBOARDING	**SCORE**
Entering Alphabetic Text	
Entering Numeric Text	
Entering Values with Decimal Default	
Entering Formulas to Perform Addition	
Entering Formulas to Perform Substraction	
Entering Formulas to Perform Multiplications	
Entering Formulas to Perform Division	
Entering Formulas to Perform Combined Computations	

EDITING	**SCORE**
Changing Cell Contents by Replacement	
Erasing (Blanketing) Cell Contents in Vertical Columns	
Erasing (Blanketing) Cell Contents in Horizonal Rows	
Clearing the Entire Spreadsheet from Memory	
Deleting a Single Row	
Deleting a Multiple Rows	
Deleting a Single Column	
Deleting Multiple Columns	
Inserting a Single Row	
Inserting Multiple Rows	
Inserting a Single Column	
Inserting Multiple Columns	

Correcting by Replacement ____________

Making Revisions by Striking Over Characters ____________

Making Corrections by Deleting Characters ____________

Making Revisions by Inserting Characters ____________

FILE MANAGEMENT **SCORE**

Saving a File on a Disk ____________

Retrieving a File from Disk Storage ____________

Deleting a File from Disk Storage ____________

Displaying Files in Disk Storage ____________

FORMAT **SCORE**

Making Columns Wider ____________

Making Columns Narrower ____________

Aligning Text on the Right ____________

Aligning Text on the Left ____________

Centering Text ____________

Setting Decimal Places for a Single Cell ____________

Setting Decimal Places for a Range of Cells ____________

Setting Decimal Places for the Entire Spreadsheet ____________

Including the Dollar Sign with the Value ____________

Including the Comma with the Value ____________

Displaying Integer Values ____________

Designing Spreadsheet Layout ____________

REPLICATION	SCORE
Copying a Single Cell into a Single Cell	
Copying a Vertical Range of Cells	
Copying a Horizontal Range of Cells	
Copying Text from a Single Cell into Multiple Cells	
Copying a Formula into a Single Cell	
Copying a Formula into a Vertical Range of Cells	
Copying a Formula into a Horizonal Range of Cells	
Copying a Horizonal Label into a Range of Cells	
Copying a Vertical Label into a Range of Cells	
Copying a Vertical Formula without Adjustment	
Copying a Horizonal Formula without Adjustment	

FUNCTIONAL FORMULAS	SCORE
Computing Sums Vertically	
Computing Sums Horizontally	
Computing Sums Vertically and Horizontally	
Computing Count Vertically	
Computing Count Horizontally	
Computing Count with Blank Cells	
Computing Averages Vertically	
Computing Averages Horizontally	
Computing Averages Horizontally and Vertically	
Finding the Largest Value in a Vertical Range	
Finding the Largest Value in a Horizonal Range	
Finding the Smallest Value in a Vertical Range	
Finding the Smallest Value in a Horizonal Range	
Using IF Functions to Determine Status of a Value	
Using IF Functions to Make a Single Computation	
Using IF Functions to Make Multiple Computations	

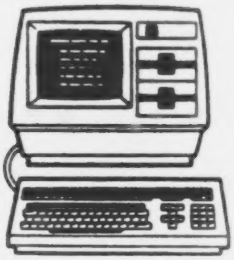
MISCELLANEOUS	SCORE
Using Vertical Titles	
Using Horizontal Titles	
Using Two Windows	
Building a Master Spreadsheet without Formulas	
Building a Master Spreadsheet with Formulas	
Using Spreadsheet Data to Construct a Pie Chart	
Using Spreadsheet Data to Construct a Bar Graph	
Using Spreadsheet Data to Construct a Line Graph	

Source: **101 Spreadsheet Exercises:** McGraw-Hill Book Company, 1987.

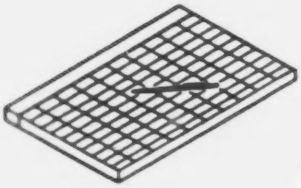
TM1

SPREADSHEETS ARE USED TO PERFORM MATHEMATICAL CALCULATIONS

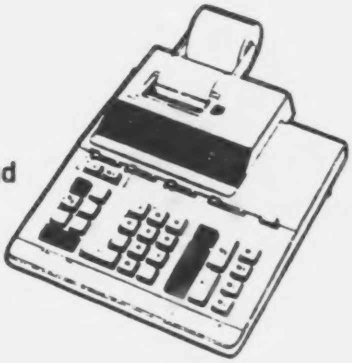
ELECTRONIC SPREADSHEETS REPLACE ACCOUNTANTS' COLUMNAR PADS, PENCILS, AND CALCULATORS



VS.



and



SPREADSHEET APPLICATIONS INCLUDE:

Financial statements such as Balance Sheets and Income Statements

Construction company bids

Product pricing

Profit margin determinations

Depreciation schedules

Budget preparation

And many others

Source: **Applications Using the Personal Computer**, Groneman and Owen, South-Western Publishing Company, 1988.

AN ELECTRONIC SPREADSHEET CONSISTS OF COLUMNS AND ROWS

CELL B1: 100

COLUMNS

	A	B	C	D	E
ROWS 1		100			
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

Source: **Applications Using the Personal Computer**, Groneman and Owen, South-Western Publishing Company, 1988.

VALUES, LABELS, AND FORMULAS ARE USED IN SPREADSHEETS

TM3

CELL B4: +B1+B2+B3

	A	B	C	D
1	Cash	400		
2	Accounts Receivable	50		
3	Equipment	900		
4	Total Assets	+B1+B2+B3		
5				
6				
7				
8				
9				

VALUES = Numbers

LABELS = Words

FORMULAS = Algebraic Formulas

+ Addition

− Subtraction

/ Division

* Multiplication

Source: **Applications Using the Personal Computer**, Groneman and Owen, South-Western Publishing Company, 1988.

FUNCTIONS USE A RANGE OF CELLS

TM4

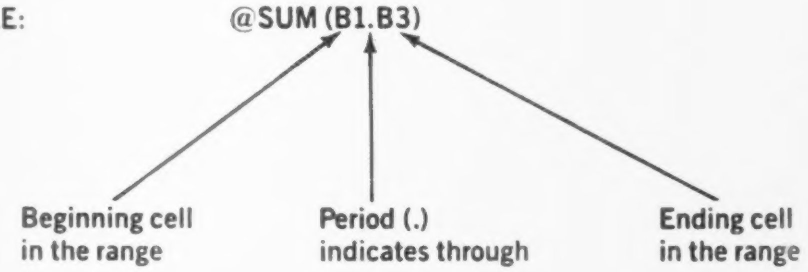
A range consists of the adjacent cells that form a rectangle.

Functions are shortcut formulas.

COMMONLY USED FUNCTIONS:

AVG or @AVG (.)	To find the average of a range of numbers.
SUM or @SUM (.)	To find the sum of a range of numbers.
MAX or @MAX (.)	To find the largest number in a range of numbers.
MIN or @MIN (.)	To find the smallest number in a range of numbers.

EXAMPLE:


@SUM (B1.B3)
Beginning cell in the range
Period (.) indicates through
Ending cell in the range

Source: **Applications Using the Personal Computer**, Groneman and Owen, South-Western Publishing Company, 1988.

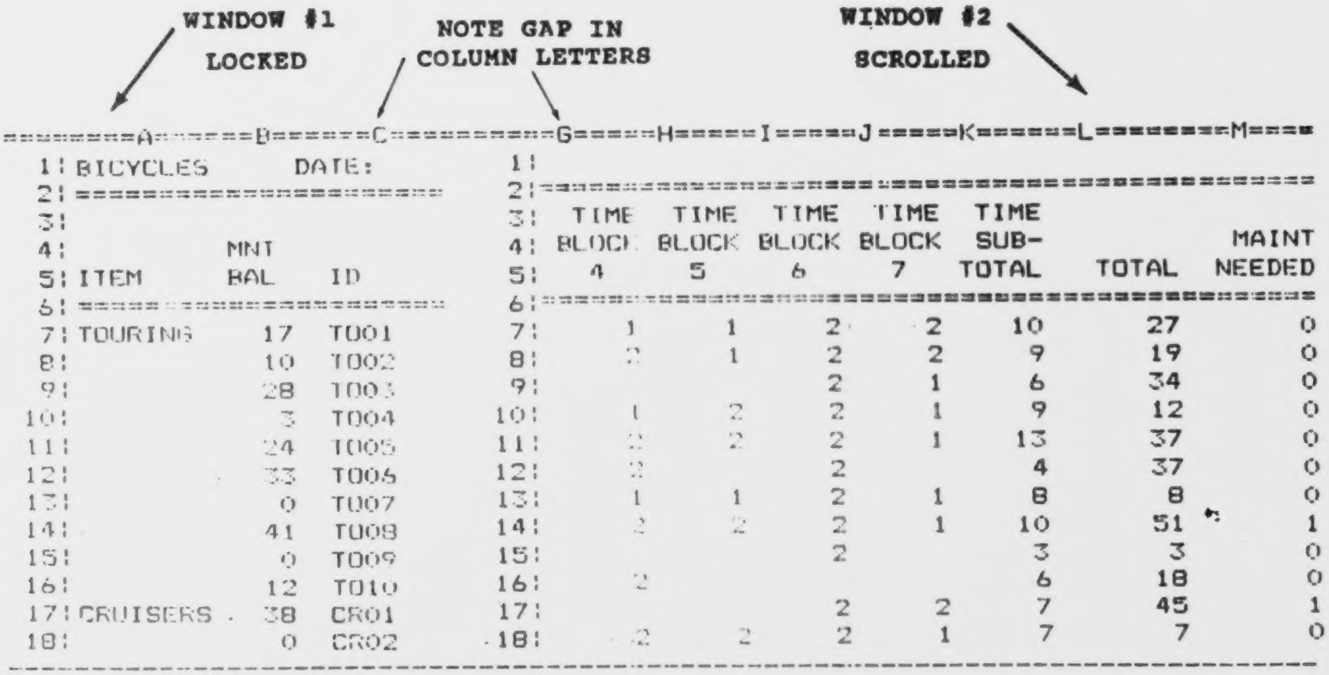
AFTER THE FORMULA IS ENTERED, THE CELL VALUE APPEARS

CELL B3: @SUM(B1.B3)

1350

	A	B	C	D
1	Cash	400		
2	Accounts Receivable	50		
3	Equipment	900		
4	Total Assets	1350		
5				
6				
7				
8				
9				

Source: **Applications Using the Personal Computer**, Groneman and Owen, South-Western Publishing Company. 1988.


WINDOW #1
LOCKED
NOTE GAP IN
COLUMN LETTERS
WINDOW #2
SCROLLED

```
=========A=======B=======C===========G======H======I======J======K=======L=========M====
 1: BICYCLES       DATE:          1:
 2: ========================      2:=======================================================
 3:                               3:  TIME   TIME   TIME   TIME   TIME
 4:             MNT               4: BLOCK  BLOCK  BLOCK  BLOCK   SUB-                MAINT
 5: ITEM        BAL    ID         5:   4      5      6      7    TOTAL      TOTAL    NEEDED
 6: ========================      6:=======================================================
 7: TOURING       17   T001       7:     1      1      2      2     10         27         0
 8:                10   T002       8:     2      1      2      2      9         19         0
 9:                28   T003       9:                   2      1      6         34         0
10:                 3   T004      10:     1      2      2      1      9         12         0
11:                24   T005      11:     2      2      2      1     13         37         0
12:                33   T006      12:     2             2             4         37         0
13:                 0   T007      13:     1      1      2      1      8          8         0
14:                41   T008      14:     2      2      2      1     10         51         1
15:                 0   T009      15:                   2             3          3         0
16:                12   T010      16:     2                           6         18         0
17: CRUISERS       38   CR01      17:                   2      2      7         45         1
18:                 0   CR02      18:     2      2      2      1      7          7         0
-----------------------------------------------------------------------------------------
```

SPREADSHEET--VERTICAL WINDOWING

Vertical Windowing

Horizontal Windowing

WINDOW #1 LOCKED

NOTE GAP IN ROW NUMBERS

WINDOW #2 SCROLLED

```
=========A======B======C======D=====E=====F=====G=====H=====I=====J=====K===
  1|BICYCLES      DATE:     JULY
  2|======================================================================
  3|                          TIME  TIME  TIME  TIME  TIME  TIME  TIME  TIME
  4|           MNT            BLOCK BLOCK BLOCK BLOCK BLOCK BLOCK BLOCK SUB-
  5|ITEM       BAL    ID        1     2     3     4     5     6     7   TOTAL
  6|======================================================================

=========A======B======C======D=====E=====F=====G=====H=====I=====J=====K===
 16|             12  1010                 2     2     2                    6
 17|CRUISERS     38  CR01       2     1                       2     2      7
 18|              0  CR02                       2     2       2     1      7
 19|             11  CR03                 1     2     2                    5
 20|             39  CR04       2     2         1     2       1     2     10
 21|              6  CR05       2     1                       2     1      6
 22|TANDEMS       0  TA01       2     1         2     2       1            8
 23|              4  TA02       1     2     2   2             2     1     10
 24|             37  TA03                 2     2     2                    6
 25|             27  TA04                             1       2            3
 26|             43  TA05       2     2     2   2     2       2     2     14
-----------------------------------------------------------------------------
```

SPREADSHEET--HORIZONTAL WINDOWING

Spreadsheet
F-18

TM7

157

158

EVALUATION MEASURES
FOR
SPREADSHEET

COMPETENCY GOAL 6: The learner will use a spreadsheet program.

OBJECTIVE 6.1: Identify the advantages of using a spreadsheet program.

Test Item 006-6.1-01

INSTRUCTIONS TO STUDENTS: Read each of the following statements about the advantages of using a spreadsheet program. Record the correct response true or false in the blank provided.

____________ 1. Electronic spreadsheets can be designed to look just like manual ones but the data is much easier to change and recalculate.

____________ 2. A spreadsheet is nothing more than a written display of quantitative material.

____________ 3. Electronic spreadsheets do not easily allow for future planning.

____________ 4. Because change is so easy, estimates are easy to make and can be altered until a desired result is obtained.

____________ 5. Spreadsheets provide ways to organize and display computations in a convenient manner.

Test Item 006-6.1-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements about the advantages of using a spreadsheet program. Record the correct response true or false in the blank provided.

____________ 1. A spreadsheet is an electronic worksheet that contains rows and columns.

____________ 2. A spreadsheet has no value for personal applications.

____________ 3. A spreadsheet has a very limited usage when the problem requires repetitious calculations.

____________ 4. When you plan a spreadsheet, the main considerations should be what solutions or answers you are looking for.

____________ 5. A spreadsheet is a very powerful tool for business owners and managers to use in predicting various outcomes with "what if" situations.

OBJECTIVE 6.2: Recognize spreadsheet terms.

Test Item 006-6.2-01

INSTRUCTIONS TO STUDENTS: Supply the correct answer for each of the following statements concerning spreadsheet terms.

________ 1. A term used in the replication process to indicate reproduction of a cell without change. Sometimes referred to as "no change".

________ 2. The single highlighted location of a spreadsheet.

________ 3. The process of sorting data in acsending or descending order.

________ 4. A single location on a spreadsheet.

________ 5. The intersection of a column and a row.

________ 6. The vertical portions of the spreadsheet.

________ 7. A software command to split the spreadsheet horizonally or vertically into separate scrollable worksheets.

________ 8. An entry on the worksheet used in calculations.

________ 9. The horizonal portions of the spreadsheet.

________ 10. A stored spreadsheet.

________ 11. The preset conditions of the software which may be modified example: column width settings.

________ 12. A command to make horizonal or vertical titles stationary when scrolling.

________ 13. A plan, layout or command used to present the spreadsheet data clearly and more attractively.

________ 14. A software command to reproduce data from one location or range of locations to another location or range of locations.

________ 15. A columnar worksheet used to calculate or analyze data.

________ 16. A software command to relocate data from one place to another.

________ 17. A software formula for performing calculations or special operations.

________ 18. A representation of fact.

________ 19. A defined area of the spreadsheet.

________ 20. The column and row headings or titles that begin with a letter or label indicator (").

Source: **101 Spreadsheet Exercises,** McGraw-Hill Book Company, 1987.

Test Item 006-6.2-02

INSTRUCTIONS TO STUDENTS: Match the correct definition (letter) with the correct term. Place the correct letter in the blank provided.

	TERMS		DEFINITIONS
____ 1.	Absolute Value	A.	A columnar worksheet used to calculate or analyze data
____ 2.	Active Cell	B.	A defined area of the spreadsheet
____ 3.	Arrange	C.	A stored spreadsheet
____ 4.	Cell	D.	A term used in the replicate process to indicate reproduction of a cell without change
____ 5.	Cell Coordinate	E.	The column and row headings or titles that begin with a letter or label indicator
____ 6.	Column	F.	The single highlighted location of a spreadsheet
____ 7.	Window	G.	A software formula for performing calculations or special operations
____ 8.	Value	H.	The process of sorting data in ascending or descending order
____ 9.	Row	I.	The vertical portions of the spreadsheet
____ 10.	File	J.	The intersection of a column and a row
____ 11.	Default	K.	A software command to split the spreadsheet horizontally or vertically into separate scrollable worksheets
____ 12.	Fixing Titles	L.	A command to make horizontal or vertical titles stationary when scrolling
____ 13.	Format	M.	A plan, layout or commands used to present the spreadsheet data clearly and more attractively
____ 14.	Copy	N.	An entry on the worksheet used in calculations
____ 15.	Spreadsheet	O.	The horizontal portions of the spreadsheet
____ 16.	Move	P.	A presentation of facts
____ 17.	Function	Q.	A software command to relocate data from one place to another
____ 18.	Data	R.	A single location on a spreadsheet
____ 19.	Range	S.	The preset conditions of the software which may be modified
____ 20.	Label	T.	A software command to reproduce data from one location or range of locations to another location or range of locations
		U.	A software program that will allow for mailing labels to be generated

Source: **101 Spreadsheet Exercises**, McGraw-Hill Book Company, 1987.

OBJECTIVE 6.3: Identify several applications in which spreadsheet programs can be used.

Test Item 006-6.3-01

INSTRUCTIONS TO STUDENTS: List at least three types of information that can be kept on a spreadsheet for the following usages:

1. For Business:

   ____

   ____

   ____

2. For Schools:

   ____

   ____

   ____

3. For Personal:

   ____

   ____

   ____

4. For a Construction Company:

   ____

   ____

   ____

5. For a Statistician:

   ____

   ____

   ____

Test Item 006-6.3-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements about applications in which a spreadsheet program can be used. Record the correct response true or false in the blank provided.

_______________ 1. The best use for a template is to store the labels and formulas for a monthly balance sheet.

_______________ 2. When the cost of manufacturing a tape recorder increases from $90 to $100, the spreadsheet automatically recalculates the new profit margin.

_______________ 3. Spreadsheets allow shortcut mathematical processes which are called functions.

_______________ 4. Once a spreadsheet has been designed, numbers cannot be changed or added.

_______________ 5. Spreadsheets replace accountant's columnar pads, pencils, and calculators.

OBJECTIVE 6.4: Enter labels, values and formulas into spreadsheet cells.

Test Item 006-6.4-01

INSTRUCTIONS TO STUDENTS: Using a spreadsheet software package, create the given spreadsheet using the commands and operations that are common to the software program. This is a spreadsheet problem that sets up a cost analysis to figure the actual cost of a "slaw dog" and to allow you to compute and adjust the retail price to be charged. Enter the following labels and values into the spreadsheet cells.

	A	B	C	D	E	F	G
1			SLAW DOG PRICE CHART				
2							
3	Items	Cost	Quantity	No/Serve	Cost/Serv	MkUp	Retail
4	....	....	....	....	....	....	....
5	Meat	$2.50	doz.	12		2	
6	Bun	$.75	doz.	12		2	
7	Slaw	$3.00	gal.	36		2	
8	Onions	$.32	ea.	5		2	
9	....	....	....	....	....	....	....
10	Totals						

OBJECTIVE 6.5: Enter simple mathematical and statistical functions.

Test Item 006-6.5-01

INSTRUCTIONS TO STUDENTS: Using the above spreadsheet, enter the following formulas and functions:

1. Enter a formula in the Cost/Serv column that will divide the Cost by the No/Serv.
2. Enter a formula in the Retail column that will compute the Retail Value of each of the items by multiplying the Cost/Serv by the MkUp.
3. In the appropriate total column, enter a formula that will SUM the Cost column.
4. Total the Cost/Serv and the Retail columns with a SUM formula.

OBJECTIVE 6.6: Demonstrate the replication or copy command for both labels and formulas.

Test Item 006-6.6-01

INSTRUCTIONS TO STUDENTS: Using Test Item 006-6.5-01, replicate or copy the SUM formula using appropriate commands for your software program.

OBJECTIVE 6.7: Insert, delete, and move rows, columns and blocks.

Test Item 006-6.7-01

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet program, perform each of the following:

1. Insert a row between the lines in Row 9 and the word Totals.
2. Delete Row 2.
3. Move Row 8 to Row 5.
4. Move Column F to Column E.

OBJECTIVE 6.8: Change column width.

Test Item 006-6.8-01

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet program, do the following:

1. Change width of Column G by increasing it 5 spaces.
2. Change width of Column A by increasing it 4 spaces.

OBJECTIVE 6.9: Divide the screen into windows.

Test Item 006-6.9-01

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet program, do the following:

1. Divide the screen into horizontal windows.
2. Divide the screen into vertical windows.

OBJECTIVE 6.10: Fix the horizontally and/or vertically.

Test Item 006-6.10-01

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet program, do the following:

1. Fix the main horizontal headings.
2. Fix the Items Column.

Test Item 006-6.16-01

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet, do the following:

1. Print the formulas for Columns E and G.

OBJECTIVE 6.17: Store and retrieve spreadsheet files.

Test Item 006-6.11-01

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet program, do the following:

1. Format Column B for dollars with 2 decimal places.
2. Format Column D for integers with 0 decimal places.
3. Format Column E for dollars with 2 decimal places.
4. Format Column F for dollars with 2 decimal places.
5. Center the headings over each column.

OBJECTIVE 6.12: Describe the logical operators AND, OR, NOT.

Test Item 006-6.12-01

INSTRUCTIONS TO STUDENTS: Supply the correct logical operator for the following statements:

____________ 1. Results in TRUE if all values in the list are true.

____________ 2. Results in opposite logical value.

____________ 3. Results in TRUE if any values are true and FALSE if any values are false.

____________ 4. Functions permit comparisons to be made so that the program can make choices based on the results of calculations.

____________ 5. Symbol that precedes functions.

Test Item 006-6.12-02

INSTRUCTIONS TO STUDENTS: For each of the following statements, indicate true or false.

____________ 1. The functions AND, OR, NOT are considered logic functions.

____________ 2. The functions AND, OR, NOT must be preceded by the # symbol.

____________ 3. These functions permit logical comparisons to be made so that the program can make choices based on the results of calculation.

____________ 4. Several functions are provided to control program action if errors occur or if data is not always available.

____________ 5. @OR results in TRUE if any values are true and FALSE if all values are false.

OBJECTIVE 6.13: Demonstrate the use of recalculation.

Test Item 006-6.13-01

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet program, do the following:

1. Change the Meat cost to $1.69 per doz.
2. Change the each Onion cost to $.45.
3. Change the MkUp for Meat to 1.5.
4. Change the MkUp for Buns to 1.5.

OBJECTIVE 6.14: Edit the contents of a cell.

Test Item 006-6.14-01

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet, do the following:

If there is an error notation on your screen, edit the contents of the cell with the correct formula.

OBJECTIVE 6.15: Print all or selected portions of spreadsheets.

Test Item 006-6.15-01

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet, do the following:

1. Print all of the spreadsheet.
2. Print Columns A, B, G.
3. Print Columns A, B, D, E, F, G.

OBJECTIVE 6.16: Print cell contents of spreadsheets.

Test Item 006-6.16-01

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet, do the following:

Print the formulas for Columns E and G.

OBJECTIVE 6.17: Store and retrieve spreadsheet files.

Test Item 006-6.17-01

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet, do the following:

1. Store the spreadsheet under the filename SLAW.
2. Clear the computer's memory.
3. Retrieve the file named SLAW.

OBJECTIVE 6.4: Enter labels, values, and formulas into spreadsheet cells.

Test Item 006-6.4-02

INSTRUCTIONS TO STUDENTS: Mrs. Jill Jones, a high school teacher, has decided to produce a gradebook spreadsheet for her students' scores. Using the data given, enter labels, values, and formulas into spreadsheet cells.

	A	B	C	D	E
1	Gradebook for Jill Jones—First Period				
2					
3	Student	Test 1	Test 2	Test 3	Total
4					
5	Brian	93	92	90	
6	Daniel	98	100	95	
7	Angie	75	84	88	
8	Mary	76	65	80	
9	Yachea	65	84	88	
10	John	100	95	94	
11	Scott	93	96	89	
12	Kenneth	78	81	65	
13	Keith	85	91	90	
14	Ernest	92	89	96	
15					
16	Total				
17					
18	Average				

OBJECTIVE 6.5: Enter simple mathematical and statistical functions.

Test Item 006.6.5-02

INSTRUCTIONS TO STUDENTS: Using the above spreadsheet, enter the following formulas and functions.

1. Enter a formula in the Total column that will add all Test scores.
2. Enter a formula that will add the totals for each test in the Total row.
3. Enter a formula that will average the test scores.

OBJECTIVE 6.6: Demonstrate the replication or copy command for both labels and formulas.

Test Item 006-6.6-02

INSTRUCTIONS TO STUDENTS: Using Test Item 006-6.5-02, replicate or copy the formulas using appropriate commands for your spreadsheet program.

OBJECTIVE 6.7: Insert, delete, and move rows, columns, and blocks.

Test Item 006-6.7-02

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet program, perform each of the following:

1. At the end of the semester, final examinations will be given and the results are to be added to the spreadsheet. Insert a column between Test and Total and name it Exam. The scores will be added at the end of the semester.
2. Mary's record in Row 8 needs to be deleted. She has transferred to another school.
3. Move Row 14 to Row 6.

OBJECTIVE 6.8: Change column width.

Test Item 006-6.8-02

INSTRUCTIONS TO STUDENTS: Using appropriate commands for your program, perform the following:

1. Increase the width of Column A by 4 spaces.
2. Increase the width of Column F by 3 spaces.

OBJECTIVE 6.9: Divide the screen into windows.

Test Item 006-6.9-02

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your program, perform the following:

1. Divide the screen into horizontal windows.

OBJECTIVE 6.10: Fix titles horizontally and/or vertically.

Test Item 006-6.10-02

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet program, perform the following:

1. Fix the main horizontal headings.
2. Fix the Students column.

OBJECTIVE 6.11: Format both labels and numeric labels.

Test Item 006-6.11-02

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet program, perform the following:

1. Format Column F to integers with zero decimal places.
2. Format Rows 16 and 17 to integers with zero decimal places.
3. Center the headings over each column.

OBJECTIVE 6.13: Demonstrate the use of recalculation.

Test Item 006-6.13-02

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet program, perform the following:

1. Change the score for Brian to 75 on Test 1.
2. Change Ernest's scores to 88, 84, 90.

OBJECTIVE 6.14: Edit the contents of a cell.

Test Item 006-6.14-02

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet program, perform the following:

If there is an error notation on your screen, edit the contents of the cell with the formula and make needed corrections.

OBJECTIVE 6.15: Print all or selected portions of the spreadsheet.

Test Item 006-6.15-02

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet program, perform the following:

1. Print all of the spreadsheet.
2. Print Columns A and F.

OBJECTIVE 6.16: Print cell contents of spreadsheets.

Test Item 006-6.16-02

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet program, perform the following:

1. Print a copy of the formulas used in the spreadsheet.

OBJECTIVE 6.17: Store and retrieve spreadsheet files.

Test Item 006-6.17-02

INSTRUCTIONS TO STUDENTS: Using the appropriate commands for your spreadsheet program, perform the following:

1. Store the spreadsheet under the filename "Grades."
2. Clear the computer's memory.
3. Retrieve the file named "Grades."

KEY TO TEST ITEMS
FOR SPREADSHEET

Test Item 006-6.1-01

1. T
2. T
3. F
4. T
5. T

Test Item 006-6.1-02

1. T
2. F
3. F
4. T
5. T

Test Item 006-6.2-01

1. Absolute value
2. Active cell
3. Arrange
4. Cell
5. Cell Coordinate
6. Column
7. Window
8. Value
9. Row
10. File
11. Default
12. Fixing titles
13. Format
14. Copy
15. Spreadsheet
16. Move
17. Function
18. Data
19. Range
20. Label

Test Item 006-6.2-02

1. D
2. F
3. H
4. R
5. J
6. I
7. K
8. N
9. O
10. C
11. S
12. L
13. M
14. T
15. A
16. Q
17. G
18. P
19. B
20. E

Test Item 006-6.3-01

1.
   Financial forecast
   Budget
   Loans

2.
   Grades
   Report cards
   Attendance

3.
   Checkbook
   Personal budget
   Income tax preparation

4.
   Prepare bids
   Paying consultants
   Renting equipment

5.
   Allows for automatic recalculation
   Allows for mathematical functions
   Allows for mathematical formulas

Test Item 006-6.3-02

1. T
2. T
3. T
4. F
5. T

Test Item 006-6.4-01

Checklist

_____ Entered alphabetic text
_____ Entered numeric text
_____ Entered values with decimal default
_____ Entered repeated labels

Test Item 006-6.5-01

Checklist

_____ Entered formulas to perform addition
_____ Entered formulas to perform multiplication
_____ Entered formulas to perform division

Test Item 006-6.6-01

Checklist

_____ Copied a single cell into a single cell
_____ Copied a vertical range of cells
_____ Copied a horizontal range of cells
_____ Copied a formula into a range of cells
_____ Copied using relative command

Test Item 006-6.7-01

Checklist

_____ Delected a single row
_____ Inserted a row
_____ Moved a row
_____ Moved a column

Test Item 006-6.8-01

Checklist

_____ Changed single column width
_____ Changed all column widths

Test Item 006-6.9-01

Checklist

_____ Performed horizontal windowing
_____ Performed vertical windowing

Test Item 006-6.10-01

Checklist

_____ Used vertical titles
_____ Used horizontal titles

Test Item 006-6.11-01

Checklist

_____ Centered text
_____ Formatted to currency
_____ Formatted to fixed integer

Test Item 006-6.4-02—006-6.11-02

See checksheets listed in Set 1

PARTIAL LISTING OF REFERENCES

FOR
SPREADSHEET

TEXTBOOKS

Anderson and Cobb. **1-2-3 Tips, Tricks, and Traps, 2nd Edition.** Que Corporation, 11711 North College Avenue, Carmel, IN. 46032. 1-800-428-5331.

Blanc and Vento. **Spreadsheets Skill Building Exercises and Applications.** Dictation Disc Company, 14 East 38th Street, New York, NY. 10016. 1-800-528-3897. 1986.

Blow, Lisa. **Quattro Made Easy.** McGraw-Hill/Gregg Division, 1221 Avenue of the Americas, New York, NY. 10020. 1-800-334-7344.

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Close, Kenneth. **Electronic Spreadsheet Applications in Practice.** South-Western Publishing Company, 5101 Madison Road Cincinnate, OH. 45227. 1-800-543-7972.

Ettlin, Walter. **Multiplan Made Easy, Macintosh Edition.** McGraw-Hill/Gregg Division, 1221 Avenue of the Americas, New York, NY. 10020. 1-800-334-7344.

Ewing, David. **Using 1-2-3 Workbook and Disk, 2nd Edition.** Que Corporation, 11711 North College Avenue, Carmel, IN. 45032. 1-800-428-5331.

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Llemin and Harsha. **Microcomputers: A Practical Approach to Software.** McGraw-Hill/Gregg Division, 1221 Avenue of the Americas, New York, NY. 10020. 1-800-334-7344. 1988.

Perry and Lateer. **Using SuperCalc4.** Que Corporation, 11711 North College Avenue, Carmel, IN. 45032. 1-800-428-5331.

Person and Campbell. **Using Excel.** Que Corporation, 11711 North College Avenue, Carmel, IN. 45032 1-800-428-5331.

Shelly and Cashman. **Learning to Use LOTUS 1-2-3.** Boyd and Fraser Publishing Company, 20 Park Plaza, Boston, MA 02116. 1-800-225-3782. 1989.

Smith. **1-2-3 Quick.** South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH. 45227. 1-800-543-7972. 1986.

Wood, Chris. **The SuperCalc Program Made Easy.** McGraw-Hill/Gregg Division, 1221 Avenue of the Americas, New York, NY. 10020. 1-800-334-7344. 1988.

SOFTWARE

Allways. Power Up Software Corporation, PO Box 7600, San Manteo, CA 94403-7600. 1-800-851-2917.

ATI: Teach Yourself Framework. American Micro Media, 19 North Broadway, Red Hook, NY 12571. 1-800-227-1243.

ATI: Teach Yourself Multiplan. American Micro Media, 19 North Broadway, Red Hook, NY 12571. 1-800-227-1243.

ATI: Teach Yourself SuperCalc3. American Micro Media, 19 North Broadway, Red Hook, NY 12571. 1-800-227-1243.

Excel. MicroSoft Corporation, 10700 Northup Way, PO Box 97200, Bellevue, WA 98009.

Framework. Ashton-Tate. 10150 West Jefferson Avenue, Culver City, CA 90230.

Individual Training for LOTUS 1-2-3 Macros. Individual Software Corporation, 125 Shoreway Road, Suite 3000, San Carlos, CA 94070-2704. 1-800-331-3313.

MacCalc. Bravo Technologies, c/o DPAS, PO Box T, Gilroy, CA 95021. 1-800-345-2888.

McGraw-Hill Spreadsheet. McGraw-Hill/Gregg Division, 1221 Avenue of the Americas, New York, NY. 10020. 1-800-334-7344. 1988.

Multiplan. MicroSoft Corporation, 10700 Northup Way, PO Box 97200, Bellevue, WA 98009.

101 Tips, Tricks and Traps for LOTUS 1-2-3. Individual Software Corporation, 125 Shoreway Road, Suite 3000, San Carlos, CA 94070-2704. 1-800-331-3313.

PC-Calc. ButtonWare Inc.

Planning Assistant. IBM, Systems Products Division, PO Box 1328, Boca Raton, FL 33432.

Plan Perfect. WordPerfect, 288 W. Center Street, Orem, UT 84057. 1-800-225-5000.

Professional Plan. Software Publishing Corporation, 1901 Landings Drive, Mountain View, CA 94043.

Quattro. Boreland International, 4585 Scotts Valley Drive, Scotts Valley, CA 95066.

Sideways. American Micro Media, 19 North Broadway, Red Hook, NY 12571. 1-800-227-1243.

Spreadsheet. McGraw-Hill/Gregg Division, 1221 Avenue of the Americas, New York, NY. 10020. 1-800-334-7344.

SuperCalc. Computer Associates International, Inc., Micro Products Division, 2195 Fortune Division, San Jose, CA 95131. 1-800-531-5236.

The Electronic Spreadsheet. MECC, Minnesota Educational Computing Corp., 3490 Lexington Avenue North, Saint Paul, MN 55112.

Trapeze. Data Tailor, 3113 S. University Drive, Suite 500, Fort Worth, TX 76109. 1-800-443-1022.

TABLE OF CONTENTS
FOR
GRAPHICS

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COMPETENCIES

FOR
GRAPHICS SOFTWARE

COMPETENCY GOAL 7: The learner will use a graphics program.

COMPETENCY OBJECTIVES

7.1 Identify the advantages of using a graphics program.

7.2 Recognize graphics terms.

7.3 Identify several applications in which a graphics program can be used.

7.4 Create line, bar, and pie chart graphs.

7.5 Store and retrieve graphics files.

STUDENT ACTIVITIES

FOR
GRAPHICS SOFTWARE

Orientation to Graphics	**Planning Notes**
1. Discuss the advantages of using a graphics program	TM1
2. Discuss terminology as it relates to graphics.	TM2
3. List several applications in which a graphics program can be used.	
Construct Various Types of Graphs	
1. Enter correct graphics mode.	HO 1 through HO9
2. Enter data from a prepared list.	
3. Proofread and correct errors.	
4. Save and recall the graph.	
5. Print the graph.	
Construct Flyers, Greeting Cards, Letterheads	
1. Create, store and print a customized greeting card for a friend. Use borders, graphic images suitable for the occasion, and special fonts of your choice.	
2. Create, store, and print a flyer for a yard sale. Use the largest font size for the words "YARD SALE". Use suitable graphic images. Be sure to include the date, time, and address.	
3. Create, store and print a letterhead for a school club. Use suitable graphic images. Use the largest font size for the name of the club. Print the school name and address either at the top or the bottom of the page.	

Construct Graphs from Spreadsheet Data

Planning Notes

1. Using the data from the spreadsheet below, create graphs as indicated below.

KAREN'S FUDGE BUSINESS
ANNUAL COUNTY FAIR

	WEEK 1	WEEK 2	WEEK 3	WEEK 4	TOTAL
TOTAL ATTENDANCE	1800	1900	2000	2000	7700
BUY PERCENTAGE	11%	13%	14%	15%	
NUMBER OF SALES	198	247	280	300	1025
SALES PRICE PER LB.	$5.25	$5.25	$5.10	$5.10	
AVG. SALE IN LBS.	0.25	0.25	0.25	0.25	
AVG. SALE IN $	$1.31	$1.31	$1.28	$1.28	
HOURS PER WEEK	14	14	14	14	
PAY PER HOUR	$3.50	$3.50	$3.50	$3.50	
STALL COST/WEEK	$40.00	$40.00	$40.00	$40.00	$160.00
ADVERTISING COST	$5.00	$5.00	$5.00	$5.00	
5 LB. BATCH COST					
SUGAR	$0.80	$0.80	$0.80	$0.80	
CHOCOLATE	$3.80	$3.80	$3.80	$3.80	
MARSHMALLOW	$0.75	$0.75	$0.75	0.75	
MILK	$0.60	$0.60	$0.60	0.60	
BUTTER	$0.90	$0.90	$0.90	$0.90	
VANILLA & MISC	$0.10	$0.10	$0.10	$0.10	
WALNUTS	$1.60	$1.60	$1.60	$1.60	
BOX & PAPER	$1.00	$1.00	$1.00	$1.00	
SMILING FACE	$1.00	$1.00	$1.00	$1.00	
TOTAL	$10.55	$10.55	$10.55	$10.55	

FORECASTED STATEMENT OF INCOME:

	WEEK 1	WEEK 2	WEEK 3	WEEK 4	TOTAL
SALES	$259.88	$324.19	$357.00	$382.50	$1323.56
EXPENSES:					
INGREDIENTS	$104.45	$130.29	$147.70	$158.25	$540.69
PAY COST/WEEK	$49.00	$49.00	$49.00	$49.00	$196.00
STALL COST/WEEK	$40.00	$40.00	$40.00	$40.00	$160.00
TOTAL COST OF SALES	$193.45	$219.29	$236.70	$247.25	$896.69
GROSS PROFIT	$66.43	$104.90	$120.30	$135.25	$426.88
PROMOTION COSTS	$12.99	$16.21	$17.85	$19.13	$66.18
INCOME BEFORE TAX	$53.44	$88.69	$102.45	$116.13	$360.70

Create the Following Graphs:

1. Bar graph showing total attendance at the fair for each of the four weeks. Show "Week 1, Week 2, Week 3, Week 4" along the X axis. Use "TOTAL ATTENDANCE" as the graph title. Print the graph and label it Graph #1.
2. Bar graph showing total sales and cost of sales for each of the four weeks. Show "Week 1, Week 2, Week 3, Week 4" along the X axis. Use "SALES VS. COST OF SALES" as the graph title. Add a legend for Sales and Cost. Print the graph and label it Graph #2.
3. Stacked bar graph showing the 3 components of Total Cost of Sales. Show "Week 1, Week 2, Week 3, Week 4" along the X axis. Use "TOTAL COST OF SALES" as the graph title. Add a legend for Ingredients, Pay, and Stall. Print the graph and label it Graph #3.
4. Pie chart showing the ingredients of Karen's Fudge. Use "KAREN'S FUDGE" as the graph title. Print the graph and label it Graph #4.
5. Line graph showing Sales, Total Cost of Sales, and Gross Profit over the four-week period. Show "Week 1, Week 2, Week 3, Week 4" along the X axis. Use "FOUR WEEKS SUMMARY FOR KAREN'S FUDGE" as the graph title. Add a legend for Sales, Cost, and Profit. Print the graph and label it Graph #5.
6. Scatter or dot graph comparing Sales versus Promotion. Use "WEEKLY SALES" as the X axis title. Use "PROMOTION EXPENSE" as the Y axis title. Use "SALES VS. PROMOTION COSTS" as the graph title. Print the graph and label it Graph #6.

Planning Notes

HO1

COMPUTER APPLICATIONS

GRAPHICS EXERCISES

General Directions:

Complete the following exercises using a graphics program.

Any error in following instructions or errors in typing the information will result in a loss of points from a beginning grade of 100. Proofread work carefully.

SAVE ALL GRAPHS CREATED. SOME WILL BE NEEDED LATER. USE FILE NAMES SUCH AS GRAPH1, GRAPH2, GRAPH3, ETC.

Graph #1

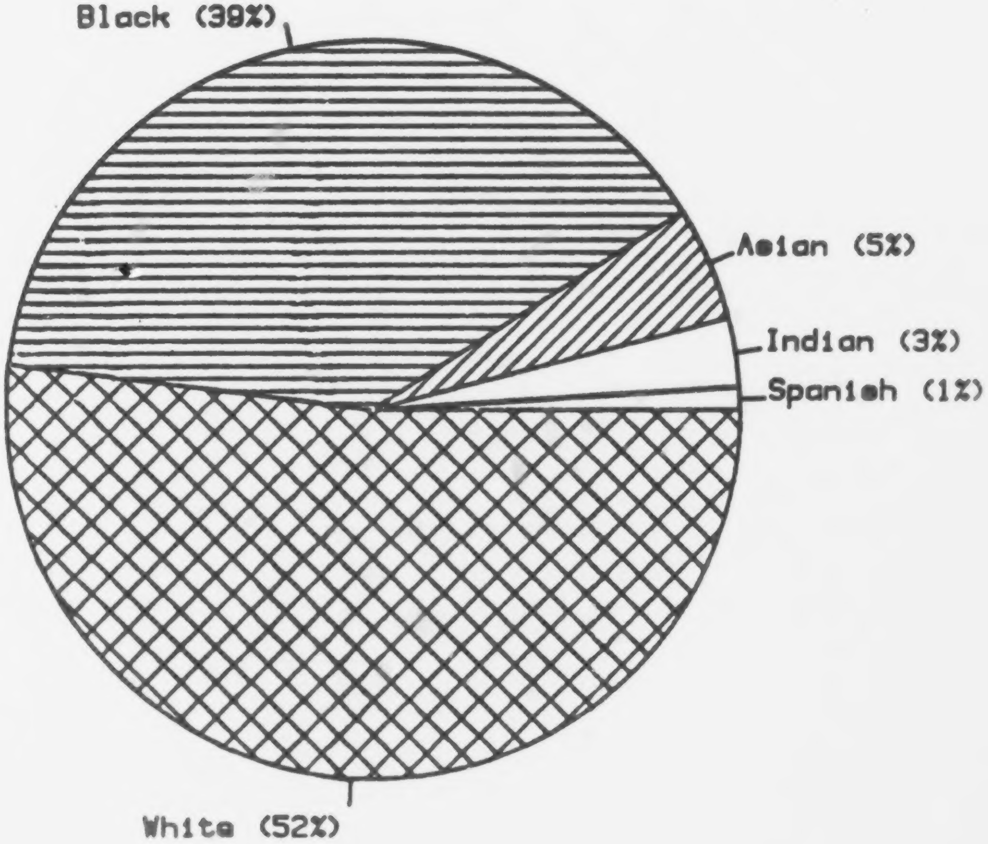
1. Make a pie graph of the following information.
2. Title: RACIAL MAKEUP OF WEST HUNTSVILLE HIGH
   The Type of Chart is %Pie. (This will make the percent signs printout on the legend.)
3. White = 52
   Black = 39
   Asian = 5
   Indian = 3
   Spanish = 1
4. Save graph as Graph1.
5. Print or plot the graph using the default options.

Graph should resemble the attached Graph #1.

LABEL THE PROBLEM AS GRAPH #1.

Graph #1:

RACIAL MAKEUP OF WEST HUNTSVILLE HIGH



Graph #2:

Use Graph #1 and make the following changes.

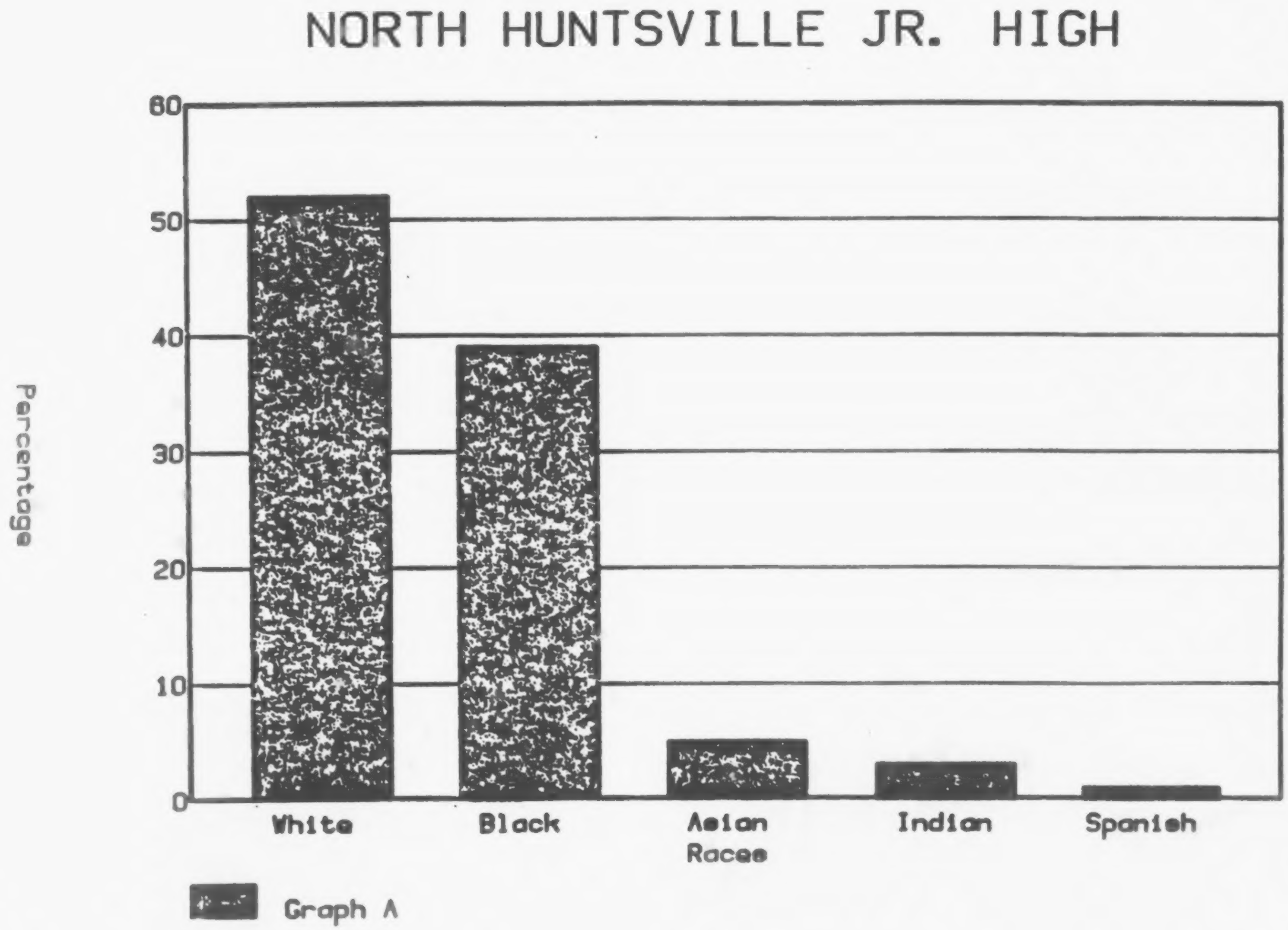
1. Change the type of graph to a bar graph.
2. Change the title to NORTH HUNTSVILLE JR. HIGH.
3. Add an x-axis title: Races.
4. Add an y-axis title: Percentage.
5. Store this new edited version of the graph under a new name such as Graph #2 and print or plot a mailable copy of this graph.

Graph should resemble the attached Graph #2.

LABEL THIS PROBLEM AS GRAPH #2.

Graph #2

Graphics
G-9



HO4

Graph #3:

Use the graph created and saved as Graph2 and make the following additions.

1. Add the racial makeup of Myers High and East Charlotte.

For Myers:

White = 42
Black = 39
Asian = 10
Indian = 6
Spanish = 3

For East Charlotte

White = 60
Black = 30
Asian = 8
Indian = 1
Spanish = 1

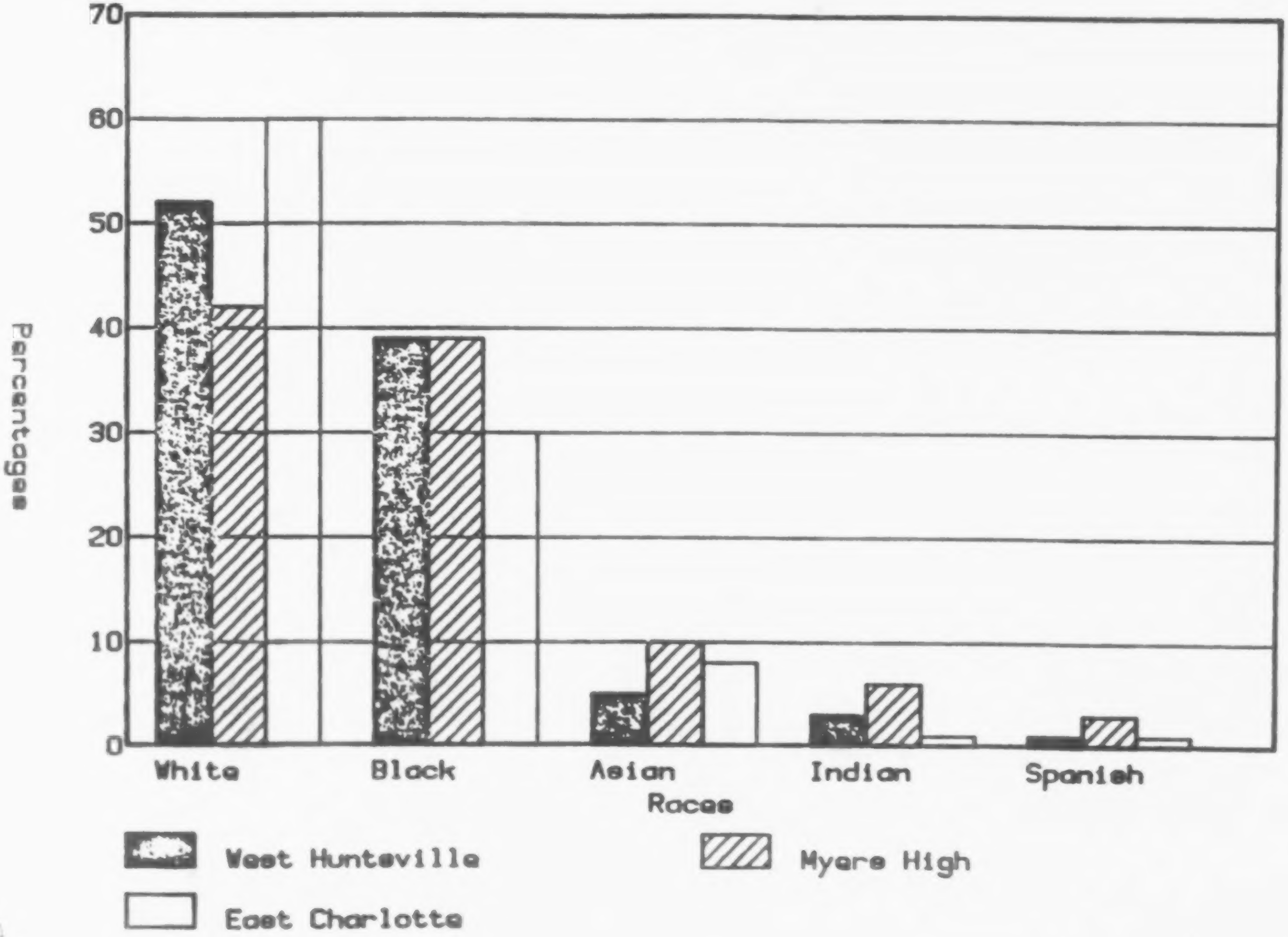
2. The title will be: RACIAL MAKEUP: W HUNT, MYERS, AND E CHAR.
3. x-axis title: Races
   y-axis title: Percentage
4. Create an appropriate legend.
5. Store the graph as Graph3 and print or plot a copy of this graph version.
6. If your program allows for the graph data to print, print the graph data to turn in with Graph #3.

Graph #3 should resemble the attached copy.

LABEL THIS PROBLEM AS GRAPH #3.

Graph #3:

RACIAL MAKEUP: W HUNT, MYERS AND E CHART



Graphics
G-11

HO6

Graph #4:

Reprint or plot the data created in Graph3 as a line graph.

Graph #4 should appear as the attached copy.

LABEL THIS PROBLEM AS GRAPH #4.

Graph #5:

Create a graph using the data and instructions below.

1. This graph shows the profit and loss of a company from January 1986 until December 1986.

2.

Profit for January was	$10,000
Profit for February was	$20,000
Profit for March was	$40,000
Profit for April was	$60,000
Profit for May was	$90,000
Profit for June was	$100,000
Profit for July was	$40,000
Profit for August was	$20,000
Profit for September was	$ 5,000
Profit for October was	$10,000
Profit for November was	$20,000
Profit for December was	$40,000

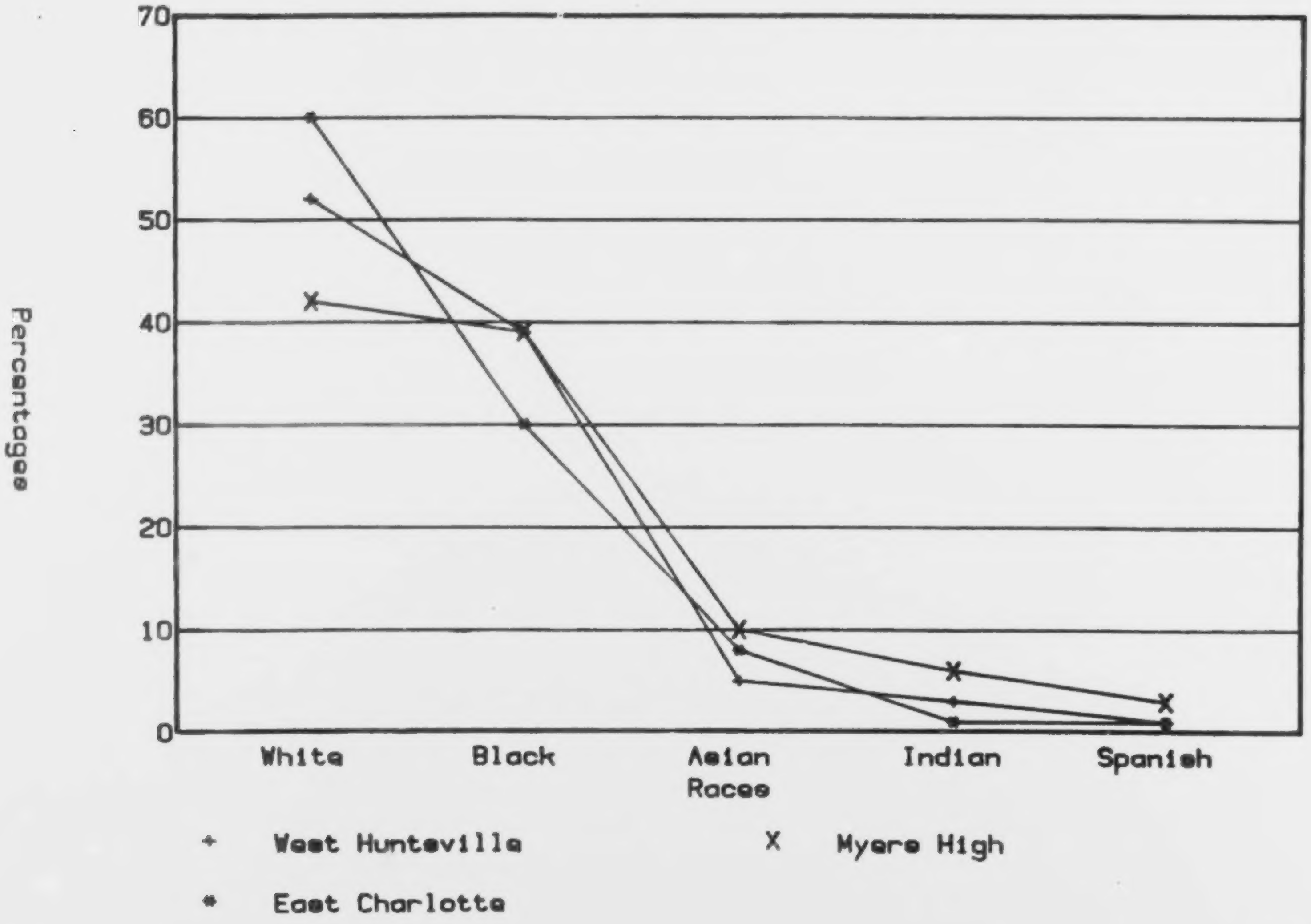
3. Name the graph and print or plot the information as a bar graph using the normal defaults of the program.

The graph should resemble the attached copy.

LABEL THIS PROBLEM AS GRAPH #5.

Graph #4:

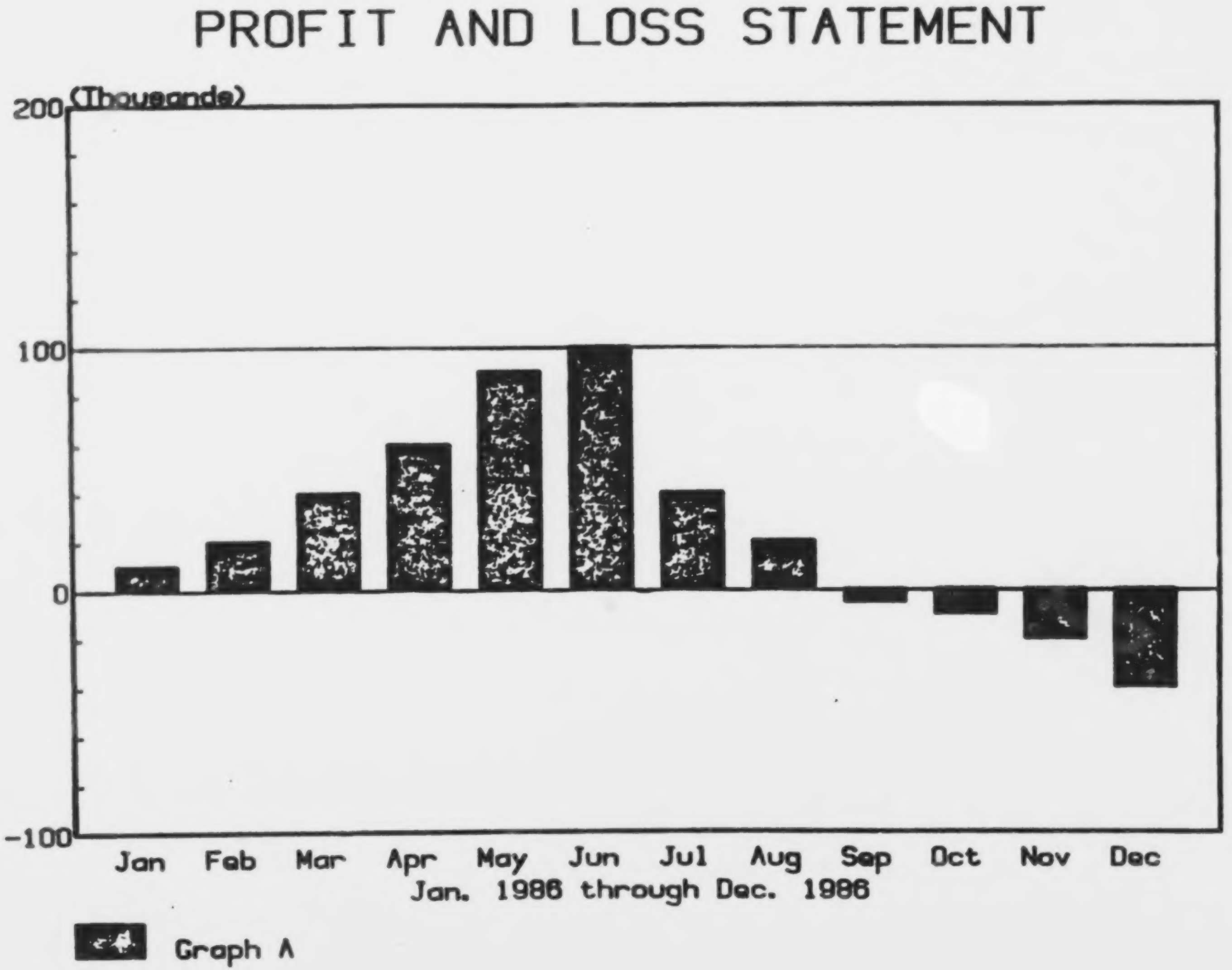
RACIAL MAKEUP: W HUNT, MYERS AND E CHART



Graphics
G-13

HOS

Graph #5:


PROFIT AND LOSS STATEMENT
(Thousands)
200
100
0
-100
Dollars
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan. 1986 through Dec. 1986
Graph A

TM1

THE ADVANTAGES OF USING GRAPHICS SOFTWARE

Focus the reader's attention

Make written material easier to remember

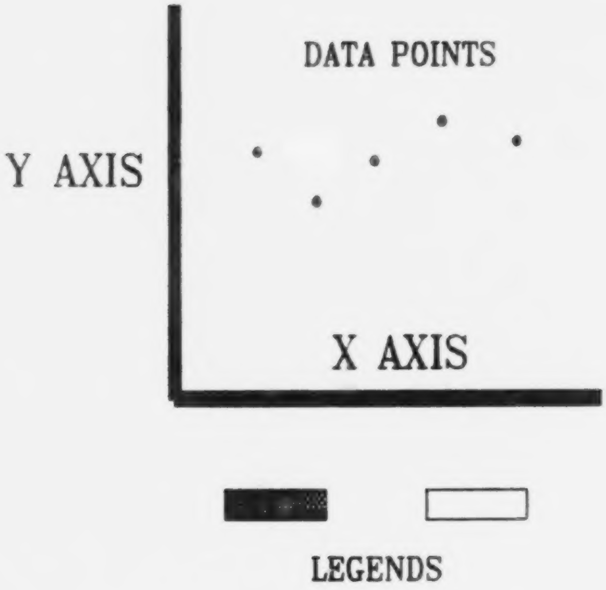
Convey detailed information quickly

Provide visual relief

Less expensive than hiring an artist

No need for training in art

THE PARTS OF A GRAPH


DATA POINTS
Y AXIS
X AXIS
LEGENDS

EVALUATION MEASURES
FOR
GRAPHIC SOFTWARE

COMPETENCY GOAL 7: The learner will use a graphics program.

OBJECTIVE 7.1: Identify the advantages of using a graphics program.

Test Item 007.7.1-01

INSTRUCTIONS TO STUDENTS: Read each of the following statements about graphics. Determine if each statement is true or false. Record the correct response (true or false) in the blank to the left of each statement.

________ 1. One advantage of using graphics in a written report is that the reader's attention can be focused on those facts and figures which the writer wants to emphasize.

________ 2. One advantage of using graphics software is that the user can create graphs and charts without entering facts and figures.

________ 3. One advantage of using graphics software is that the user can produce graphs and charts without any training in art.

________ 4. One advantage of using graphics software is that graphics can make written material easier to remember.

________ 5. One advantage of using graphics is that one can convey information more quickly and efficiently than with words alone.

________ 6. One advantage of using graphics software is that one need not be an artist to produce effective graphs and illustrations.

Test Item 007-7.1-02

INSTRUCTIONS TO STUDENTS: List at least five (5) advantages of using a graphics program.

1.

2.

3.

4.

5.

Test Item 007-7.1-03

INSTRUCTIONS TO STUDENTS: Read the statements below. Identify those statements which are advantages of using a graphics program. Place a check mark (√) in the blank to the left of any statement which is an advantage. Do not place a mark in the blank if the statement is not an advantage.

_________ 1. Using graphics in a written report focuses the reader's attention on those facts and figures which the writer wants to emphasize.

_________ 2. A user of graphics software can create graphs and charts without entering facts and figures.

_________ 3. A user of graphics software can produce graphs and charts without any training in art.

_________ 4. Graphics software can make written material more appealing.

_________ 5. Graphics can convey information more quickly and efficiently than words.

_________ 6. The user of graphics software need not be an artist in order to produce effective graphs and illustrations.

_________ 7. Using graphics software to create graphs, charts or illustrations is less expensive than hiring an artist.

OBJECTIVE 7.2: Recognize graphics terms.

Test Item 007-7.2-01

INSTRUCTIONS TO STUDENTS: From the list of graphics terms below, choose the one best term for each statement. Place the letter of the term you choose in the blank to the left of the statement.

A. area graph
B. axis
C. bar graph
D. caption
E. clip
F. coordinate
G. crop
H. data point
I. data series
J. filling
K. font
L. frame
M. kern
N. legend
O. line graph
P. page layout
Q. pica
R. pie chart
S. pixels
T. scatter graph
U. stacked bar graph
V. tick marks
W. V axis
X. X axis
Y. Y axis
Z. Z axis

__________ 1. Keys or notations explaining symbols used in a graph.

__________ 2. A numeric value on a graph.

__________ 3. Picture elements, tiny dots of light on ink that together form an image.

__________ 4 One of the two perpendicular lines that create the scales of a graph.

__________ 5. One of a pair of numbers used to specify a point on a graph.

__________ 6. Adding color or pattern to a specific area on a screen.

__________ 7. Explanatory text that appears below a picture.

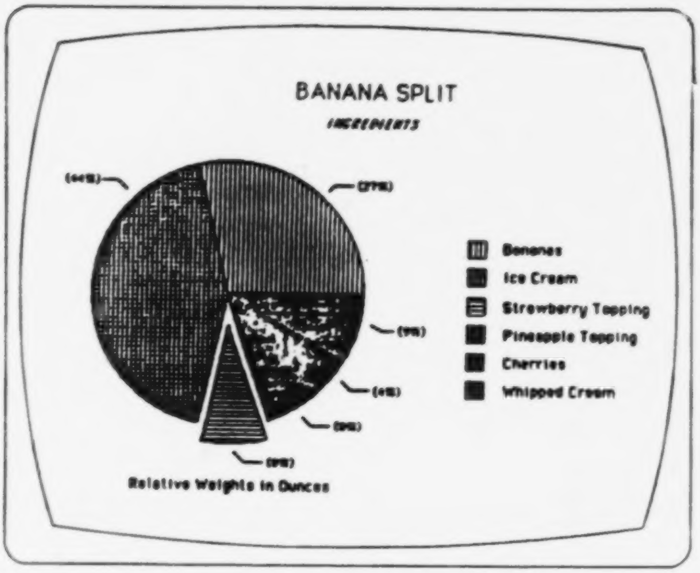
__________ 8. Arranging formatted text on a page.

__________ 9. Cutting off the edges of an image.

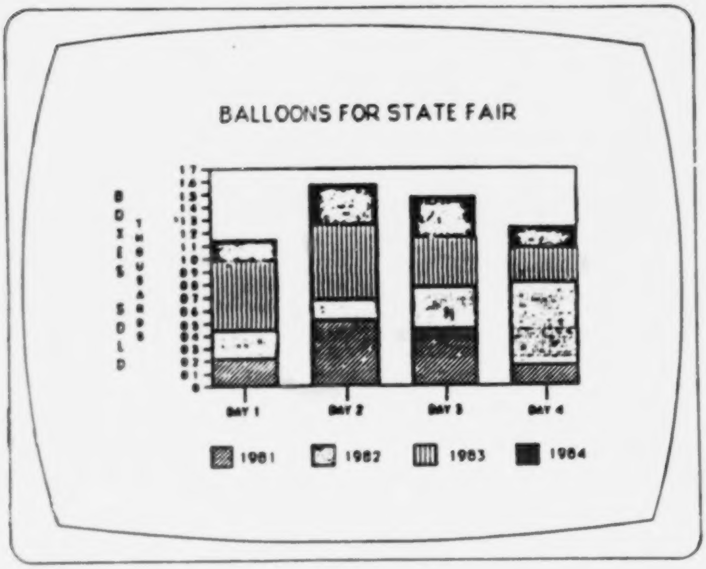
__________ 10. The vertical axis of a graph.

Test Item 007-7.2-02

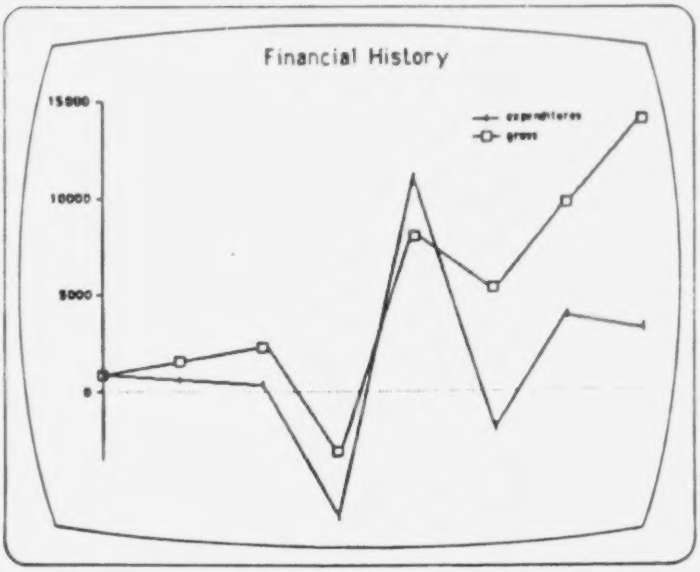
INSTRUCTIONS TO STUDENTS: Identify each of the following charts[1]. In the blank below each chart write the correct name for the type of chart.



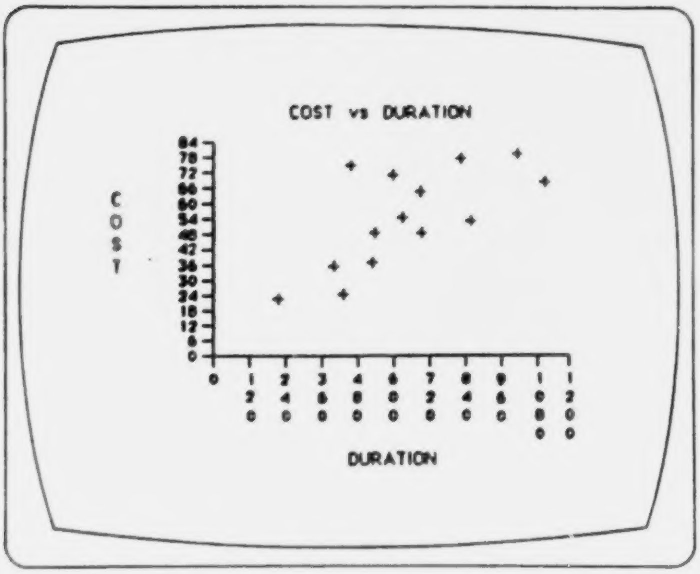
1. ____________________


BALLOONS FOR STATE FAIR
BOXES SOLD
THOUSANDS
0
17
DAY 1
DAY 2
DAY 3
DAY 4
1981
1982
1983
1984

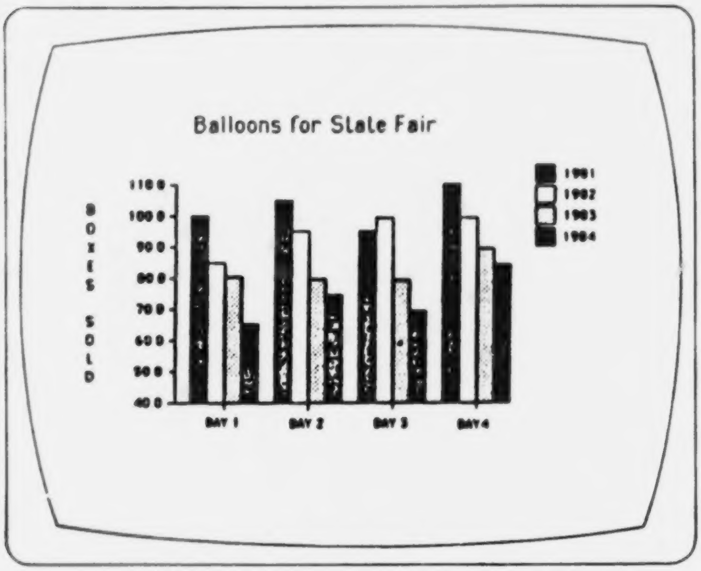
2. ____________________


Financial History
15000
10000
5000
0
expenditures
gross

3. ____________________



4. ____________________



5. ____________________

[1] Graph illustrations from *Introduction to Computers Using the IBM PC,* Steven L. Mandell, West Publishing Co., 1885, pp. 249-250.

Test Item 007-7.2-03

INSTRUCTIONS TO STUDENTS: Choose the one best word or phrase which completes each of the statements below. Write the letter of your choice in the blank to the left of each statement.

________ 1. Explanatory text that appears below a picture or illustration is called a
(a) font
(b) legend
(c) pica
(d) caption

________ 2. Arranging formatted text and graphics on a page is called
(a) page layout
(b) set up
(c) page format
(d) page framing

________ 3. The term for cutting off the edges of an image is
(a) frame
(b) crop
(c) clip
(d) kern

________ 4. The vertical axis of a graph is the
(a) X axis
(b) Y axis
(c) Z axis
(d) V axis

________ 5. A shaded line graph which shows cumulative quantity is called
(a) an area graph
(b) a bar graph
(c) a line graph
(d) a pie chart

OBJECTIVE 7.3: Identify several applications in which a graphics program can be used.

Test Item 007-7.3-01

INSTRUCTIONS TO STUDENTS: List at least five (5) applications for using a graphics program.

1.

2.

3.

4.

5.

Test Item 007-7.3-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements about graphics applications. Determine if each statement is true or false. Record the correct response (true or false) in the blank to the left of each statement.

________ 1. Graphics software can be used for Computer-Aided Manufacturing (CAM).

________ 2. Graphics software can be used for Computer-Aided Design (CAD).

________ 3. Graphics software can be used by architects to create blueprints.

________ 4. Graphics software can be used in the home to turn appliances on and off.

________ 5. Graphics software can be used to create freehand drawings.

________ 6. Graphics software can be used to create special effects in motion pictures.

________ 7. Graphics software can be used to enhance an oral or written presentation.

________ 8. Graphics software can be used to create a newsletter.

________ 9. Graphics software can be used by designers of automobiles.

________ 10. Graphics software can be used by salespersons to communicate sales information to their home offices.

Test Item 007-7.3-03

INSTRUCTIONS TO STUDENTS: Fill in the blanks in the sentences below with the word or phrase which best completes the sentence.

1. Using graphics software to make an image appear to move is called ________________.

2. CAD is an abbreviation used to refer to the use of graphics software in drafting or engineering. CAD stands for ________________.

3. Business people often use graphics software to create ________________, which are used to illustrate and clarify numeric statistics.

4. A graphics program used by artists to create original art is called a ____________ program.

5. Computer graphics created to model an actual process in appearance and usually in performance, such as the flying of an airplane, is called a ________________.

6. ________________ graphics is the use of graphs, charts, and illustrations in oral or written presentations.

OBJECTIVE 7.4: Create line, bar, and pie chart graphs.

Test Item 007-7.4-01

INSTRUCTIONS TO STUDENTS: Develop a line graph to illustrate the following data:

Month	**Sales Amount**
January	98,278
February	82,532
March	104,898
April	118,700
May	99,340
June	43,167
July	102,015
August	125,444

Title the chart: SALES SLUMP IN JUNE. You may use abbreviations for the names of the months.

Test Item 007-7.4-02

INSTRUCTIONS TO STUDENTS: Develop a bar graph to illustrate the following data:

Quarter	**Sales Amount**
1st	102.015
2nd	71,753
3rd	128,411
4th	107,113

Title the chart: SALES WERE HIGHEST THIRD QUARTER. You may use abbreviations (i.e.: 1st Qtr).

Test Item 007-7.4-03

INSTRUCTIONS TO STUDENTS: Develop a pie chart to illustrate the following data:

Region	**Sales Amount**
A	105,422
B	190,583
C	80,255
D	210,469
E	101,978

Title the chart: REGION D GETS BIGGEST SHARE OF SALES

OBJECTIVE 7.5: Store and retrieve graphics files.

Test Item 007-7.5-01

INSTRUCTIONS TO STUDENTS: Store each of the graphs you created on your data disk using an appropriate filename. Then clear the memory of the computer.

Test Item 007-7.5-02

INSTRUCTIONS TO STUDENTS: Retrieve and print each of the graphs you created and stored on your data disk.

KEY TO TEST ITEMS
FOR
USING A GRAPHICS PROGRAM

Test Item 007-7.1-01

1. T
2. F
3. T
4. T
5. T
6. T

Test Item 007-7.1-02

The student should list 5 of the advantages of using graphics listed below:

1. To focus attention on facts and figures which the writer wants to emphasize
2. To improve comprehension
3. To improve retention
4. To convey information more quickly than with words alone
5. To provide visual relief
6. To sell a point of view
7. To show how numbers relate to each other

Test Item 007-7.1-03

The student should check all items except item #2.

Test Item 007-7.2-01

1. E
2. C
3. F
4. A
5. B
6. D

Test Item 007-7.2-02

1. Pie
2. Stacked Bar
3. Line
4. Scatter/Dot
5. Bar

Test Item 007-7.2-03

1. D
2. A
3. B
4. B
5. A

Test Item 007-7.3-01

Five applications for a graphics program include:

1. Computer-Aided-Design (CAD) used by engineers, architects, draftsmen, and other technical personnel
2. Original art created by artists
3. Special effects in movies or television
4. Graphics to enhance oral or written presentations
5. Banners, greeting cards, posters

Test Item 007-7.3-02

1. F
2. T
3. T
4. F
5. T
6. T
7. T
8. F
9. T
10 F

Test Item 007-7.3-03

1. Animation
2. Computer aided design
3. Graphs
4. Painting/Drawing
5. Simulation
6. Presentation

Test Item 007-7.4-01

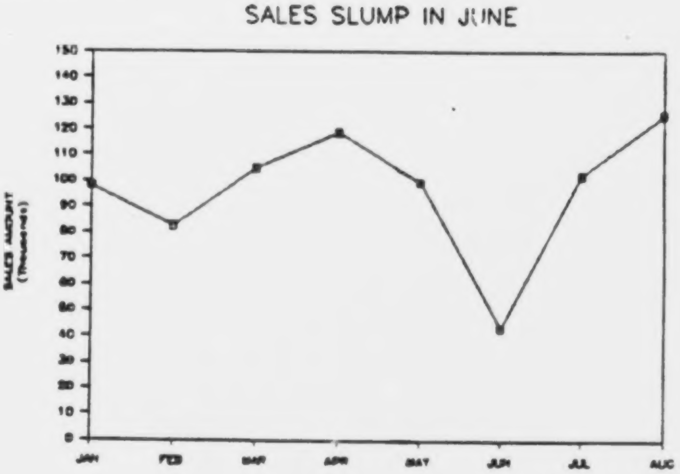
Student created line graph should look like this:

Checklist:

_____ Correct title

_____ Correct data

_____ Correct chart type



Test Item 007-7.4-02

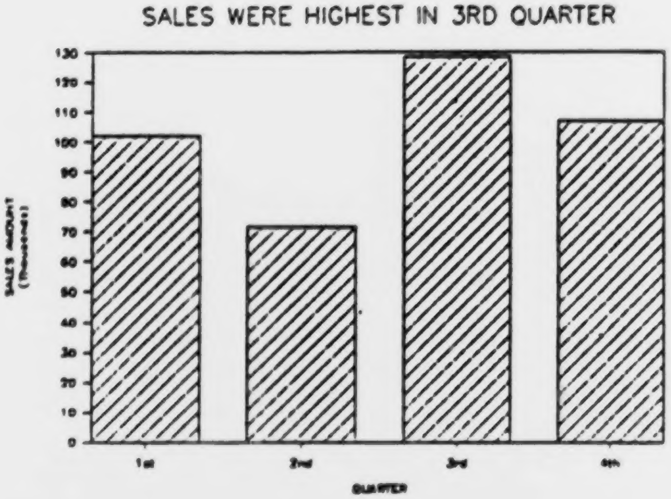
Student created bar graph should look like this:

Checklist:

_____ Correct title

_____ Correct data

_____ Correct chart type



Test Item 007-7.4-03

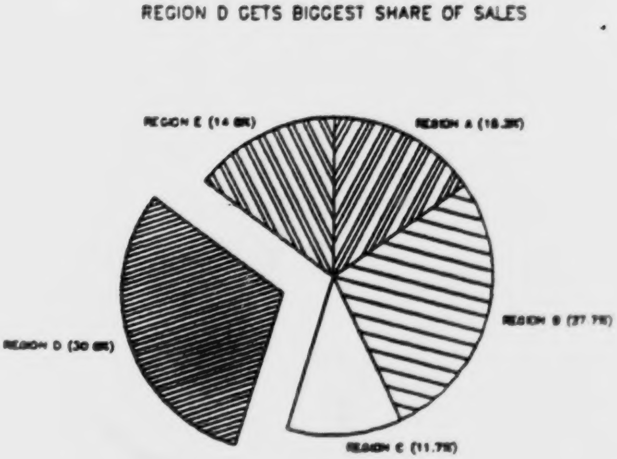
Student created Pie chart should look like this:

Checklist:

_____ Correct title

_____ Correct data

_____ Correct chart type



Test Item 007-7.5-01

Checklist:

_____ Student successfully stored graphs and cleared memory.

Test Item 007-7.5-02

Checklist:

_____ Student successfully retrieved and printed graphs.

PARTIAL LISTING OF REFERENCES
FOR
GRAPHICS

TEXTBOOKS

Benton and Balcer. **The Official Print Shop Handbook.** Bantam Books, 666 Fifth Avenue, New York, NY. 10103, 1987.

Groneman and Owen. **Applications Using the Personal Computer.** South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH. 45227. 1988. 1-800-543-7972.

Mandell, Steven L. **Introduction to Computers Using the IBM-PC.** West Publishing Company, 50 W. Kellogg Boulevard, PO Box 64526, St. Paul, MN. 55164-1003, 1985. 1-800-334-7344.

Mandell, Steven L. **Working With Application Software.** West Publishing Company, 50 W. Kellogg Boulevard, PO Box 64526, St. Paul, MN. 55164-1003, 1985. 1-800-334-7344.

Robichaud, Muscat, and Hall. **Introduction to Information Processing.** 4th Edition, McGraw-Hill, Inc., Gregg Division, PO Box 401, Hightstown, NJ. 08520, 1989.

SOFTWARE

Adobe Illustrator. Adobe Systems, 1585 Charleston Road, Mountain View, CA 94039. 1-415-961-4400.

BPS Graphics. Business and Professional Software, Inc., 143 Binney Street, Cambridge, MA 02142.

Business Graphics II. Stella Systems, 10430 South DeAnza Boulevard, Suite 185, Cupertino, CA 95014.

Canvas. Deneba Systems, 7855 NW 12th Street, Suite 202, Miami, Fl 33126. 1-800-6CANVAS.

Certificate Maker. Springboard Software, Inc., 7808 Creekridge Circle, Minneapolis, MN 55435.

Chart-Master. Decision Resources, Inc., 25 Sylvan Road South, Westport, CT 06880.

Color Chart. I/O Design, PO Box 156, Exton, PA 19341. 1-800-241-2122.

Cricket Draw. Cricket Software, 30 Valley Stream Parkway, Malvern, PA 19355. 1-215-251-9890.

Cricket Graph. Cricket Software, 30 Valley Steam Parkway, Malvern, PA 19355. 1-215-251-9890.

Dazzle Draw. Broderbund Software, 17 Paul Drive, San Rafael, CA 94903.

Draw Applause. Decision Resources, Inc., Ashton-Tate Graphics Product Center, 25 Sylvan Road South, Westport, CT 06880.

Fantairsion. Broderbund Software, 17 Paul Drive, San Rafael, CA 94903.

Freelance Plus. Lotus Development Corporation, 55 Cambridge Parkway, Cambridge, MA 02142.

Full Paint. Ann Arbor Softworks, 2393 Teller Road, Suite 106, Newbury Park, CA 91320.

Graphing. Gregg/McGraw-Hill, 1221 Avenue of the Americas, New York, NY 10020.

Graphing Assistant. International Business Machines, Systems Products Division, PO Box 1328, Boca Raton, FL 33432.

Graph-in-the-Box. New England Software, Greenwich Office Park, Greenwich, CT 06831.

Graph Plus. Migent Inc., PO Box 6062, Incline Village, NV 89450.

MacDraw. Apple Computer, 20525 Mariani Avenue, Cupertino, CA 95014.

MacPaint. Apple Computer, 20525 Mariani Avenue, Cupertino, CA 95014.

Microsoft Chart. Microsoft Corporation, 16011 NE 36th Way, PO Box 97017, Redmond, WA 98073-9717.

PC Paintbrush. Z-Soft Corporation, 1950 Spectrum Circle, Suite 1-495, Marrietta, GA 30067 1-400-980-1950.

PFS: First Graphics. Software Publishing Corporation, 1901 Landings Drive, Mountain View, CA 94039-7210.

Picture Perfect. Computer Support Corp., 2215 Midway Road, Carrollton, TX 75006.

Pixie. Zenographics, 19752 Mac Arthur Blvd, Suite 250, Irvine, CA 92715.

PowerPoint. Microsoft Corporation, 16011 NE 36th Way, PO Box 97017, Redmond, WA 98073-9717.

Professor Pixel. Gregg/McGraw-Hill, 1221 Avenue of the Americas, New York, NY 10020.

Sign-Master. Decision Resources, Inc., 25 Sylvan Road South, Westport, CT 06880.

Slidewrite/Plus. Advanced Graphics Software, Inc., 333 West Maude Avenue, Suite 105, Sunnyvale, CA 94086.

Super Paint. Silicon Beach Software, PO Box 261430, San Diego, CA 92126.

The Graphics Toolkit. Demco Electronics, 10516 Grevillea Avenue, Inglewood, CA 90304.

The Printing Press. Channelmark Corp., 2929 Campus Drive, PO Box 7600, San Mateo, CA 94403.

TABLE OF CONTENTS
FOR
WORD PROCESSING

I. Competencies H-2
II. Student Activities H-3
III. Handouts H-6
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V. Evaluation Measures (Competency Test-Item Bank) H-14
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COMPETENCIES
FOR
WORD PROCESSING

COMPETENCY GOAL 8: The learner will use a word-processing program.

COMPETENCY OBJECTIVES

8.1 Identify the advantages of using a word-processing program.
8.2 Recognize word-processing terms.
8.3 Identify several applications in which a word-processing program can be used.
8.4 Open a document and/or create a file.
8.5 Enter and edit text using appropriate command keys.
8.6 Store, retrieve, and update word-processing files.
8.7 Use available subprograms: dictionary, thesaurus, mailmerge, printer and/or screen utilities.

STUDENT ACTIVITIES

FOR
WORD PROCESSING

Orientation to Word Processing	Planning Notes
1. Discuss the advantages of using a word-processing program.	TM1, TM2
2. Discuss terminology as it relates to word processing.	TM4, TM5, TM6, HO1
3. List several applications in which a word-processing program can be used.	

Activating the Software, Opening a Document, Entering Information, Storing and Printing

1. Activate the word processing software by using system start-up procedures and word processing start-up procedures
2. Describe menus available within the particular program.
3. Open a document using name file, status line information and available help menus.
4. Observe cursor position.
5. Enter (type) simple text information (at least two or three lines).
   —Use backspace key and/or overtype feature.
   —Use wordwrap feature.
6. Store document.
7. Print file using system default.
8. Exit program.
9. Shut down system.

Performing Cursor Key Moves and Simple Editing and Simple Editing

1. Start up system and retrieve a stored document.
2. Observe location of special keys: control or code key if applicable, enter key, caps lock key, delete and/or backspace key, insert key, shift key, and space bar.
3. Move cursor using cursor control keys: up, down, right, left.
   —Scroll up and down.
   —Return to beginning of file key command.
   —End file with end-of-file command.

Planning Notes

4. Editing screen text.
   —Insert character, word, and/or space.
   —Delete character, word, and/or space.

5. Save and print edit document.

6. Exit and shut down system.

Using and Defining Special Software Program Features

1. Define and explain program default features: margins, line spacing, lines per page, pitch, pre-set tabs (whichever applies to program being used).

2. Define and demonstrate right margin justification.
   —Activate justification.
   —Deactivate justification.

3. Print a document with right margin justification.

4. Print a document without right margin justification.

5. Change special program features: margins, line spacing, lines per page, pitch, pre-set tabs (whichever applies to program being used).

6. Store and print document with changes in program features.

7. Exit and shut down equipment.

Performing More Advanced Editing Procedures

1. Start up and enter more advanced text (2 or more paragraphs) or retrieve text file from practice disk.

2. Move cursor by using cursor command keys.

3. Insert text of more than one line within a paragraph in order to observe text reformatting.

4. Introduce and explain block marker(s) command keys.

5. Block off a paragraph and delete.

6. Explain clean-up procedures after removal of block.
   —Delete extra line command.
   —Insert additional line command.

7. Store and print new document.

8. Exit program and shut down system.

Managing Files

Planning Notes

1. Start up system software and display previously stored files.
2. Explain the order in which files are cataloged on the directory.
3. Create a short document and store.
4. Redisplay directory to observe location of newly stored file.
5. Explain procedure for deleting files from directory.
6. Delete a file from directory.
7. Display directory to show deletion of file.
8. Exit and shut down equipment.

Examining Additional Print Features of Software Program

1. Explain and define print options which are available on particular software program.
2. Demonstrate special print options which may be available: underline, boldface, double strike, superscript, subscript, strike through, and halfspace or overspace.
3. Use special print features.
4. Store and print document with special print features.
5. Exit system and shut down.

Activating Available Subprograms Which May Be Available on Software Program

1. Start up system with software program.
2. Explain subsystem which may be available on software: spell check, thesaurus. proofreading program, synonym program, mailmerge program and global search feature.
3. Demonstrate command keys needed to activitate program.
4. Use subprograms which are available on software being used.
5. Exit system and shut down equipment.

WORD-PROCESSING CHECKSHEET

HO1

TEXT INPUT

SCORE

Using Wraparound to Enter text ________

Using the Return or Enter Key ________

Underlining Text ________

Centering Headings ________

Centering Lines ________

Boldfacing ________

Numbering Lists ________

Creating Forms ________

TEXT EDIT

SCORE

Correcting Errors by Backspacing ________

Deleting Characters ________

Inserting Characters ________

Inserting Words ________

Keyboarding Over Existing Text ________

Searching for Words ________

Searching and Replacing Text ________

Moving Text ________

FORMAT

SCORE

Indenting Paragraphs ________

Setting Margins ________

Justifying Margins ________

Adjusting Margins ________

Setting Tabs ________

Inserting Blank Lines ________

Double Spacing ________

Adjusting Line Spacing ________

STORAGE AND RETRIEVAL **SCORE**

Storing Documents ________

Retrieving Documents from Storage ________

Deleting Documents from Storage ________

ADVANCED FUNCTIONS **SCORE**

Setting Decimal Tabs ________

Centering Headings Over Columns ________

Copying Text ________

Performing Spelling Functions ________

Performing Math Functions ________

Inserting Page Breaks ________

MISCELLANEOUS **SCORE**

Inserting Text Variables ________

Composing Text ________

DOCUMENTS **SCORE**

Keyboarding a Table ________

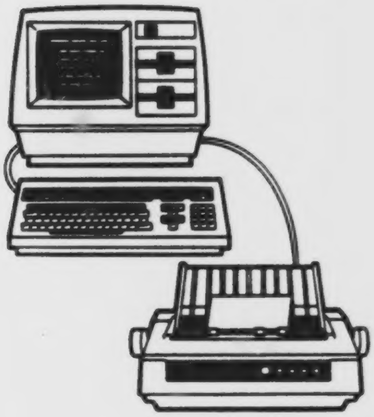
Keyboarding a Memorandum ________

Keyboarding a Letter ________

Source: **101 Word Processing Exercises,** McGraw-Hill Book Company, 1986

TM1

WORD PROCESSORS INCREASE OFFICE PRODUCTIVITY



SPECIFIC BENEFITS:

1. GET MORE WORK DONE
2. IMPROVE THE TURNAROUND TIME
3. GET WORK DONE AT LESS COST
4. IMPROVE APPEARANCE AND ACCURACY OF DOCUMENTS

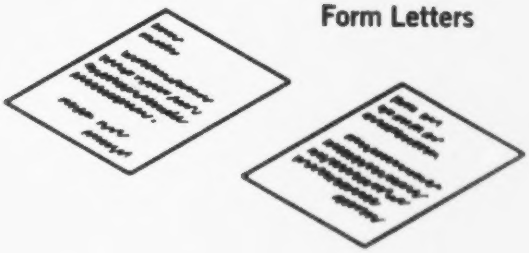
Source: **Applications Using the Personal Computer**, Southwestern Publishing Company, 1988

TM2

PRODUCTIVITY ADVANTAGES WITH WORD PROCESSORS

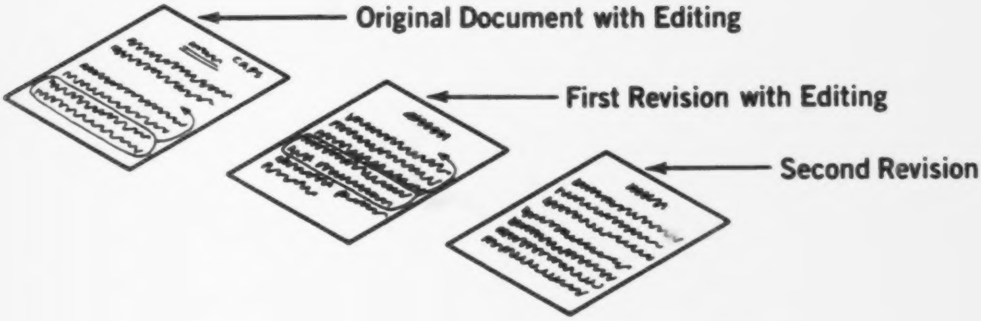
GREATEST INCREASE IN PRODUCTIVITY

*Form Letters and Other
Repetitive Documents


Form Letters

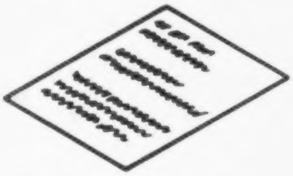
SECOND GREATEST INCREASE IN PRODUCTIVITY

*Revised Documents


Original Document with Editing
First Revision with Editing
Second Revision

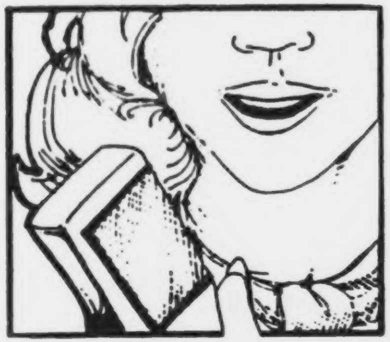
LEAST INCREASE IN PRODUCTIVITY

*Original Document with no Revisions Needed

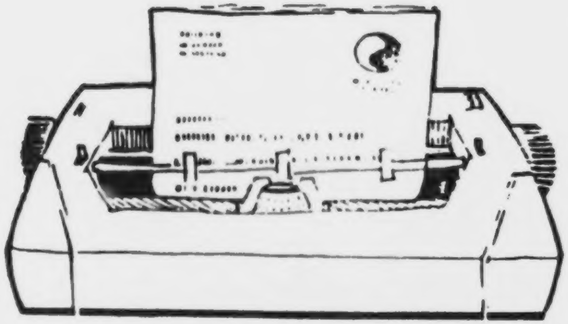


Source: **Applications Using the Personal Computer**, Southwestern Publishing Company, 1988

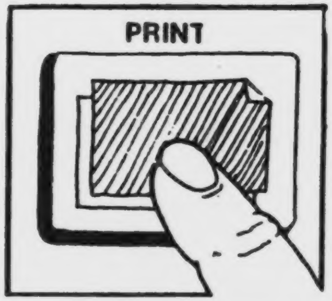
THE WORD PROCESSING CYCLE



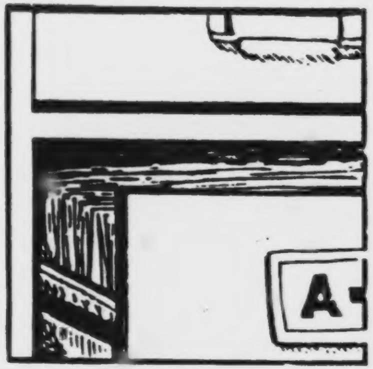
1. CREATION of INPUT



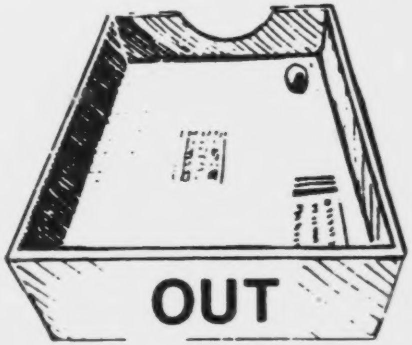
2. PRODUCTION of OUTPUT



3. REPRODUCTION of DOCUMENT



4. FILING of DOCUMENT

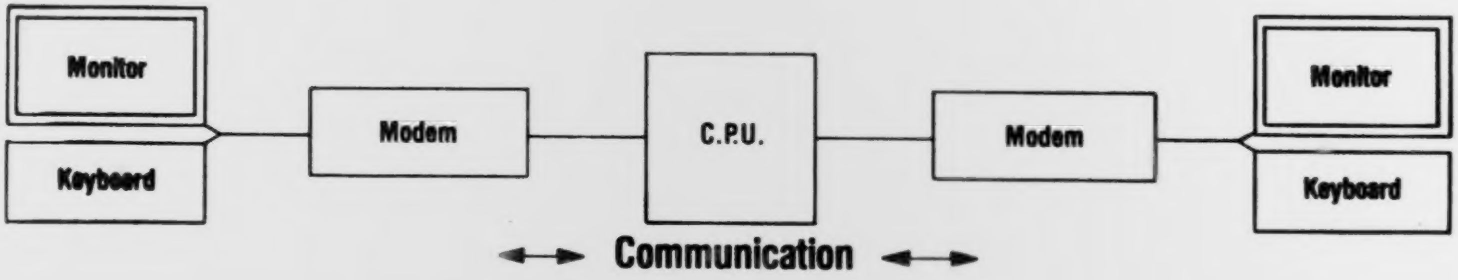


5. DISTRIBUTION/ COMMUNICATION

TM3

Source: Microcomputer Business Applications, Mid-America Vocational Curriculum Consortium, Inc. 1986

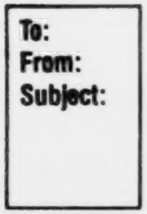
Major Types of Word Processors


Monitor
Keyboard
Modem
C.P.U.
Modem
Monitor
Keyboard
Communication

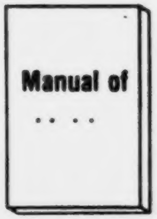
Time Shared

Source: Microcomputer Business Applications, Mid-America Vocational Curriculum Consortium, Inc., 1986

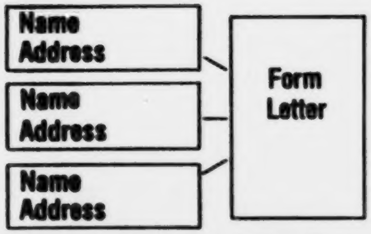
Major Applications of Word Processing


To:
From:
Subject:

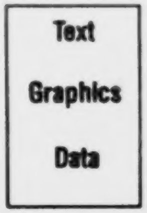
Correspondence



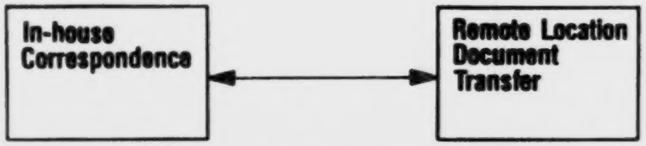
Reports


Name
Address
Name
Address
Name
Address
Form
Letter

Records Processing


Text
Graphics
Data

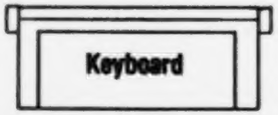
Document Integration


In-house
Correspondence
Remote Location
Document
Transfer

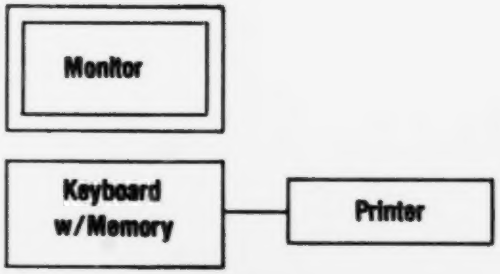
Electronic Communication

Source: Microcomputer Business Applications, Mid-America Vocational Curriculum Consortium, Inc., 1986

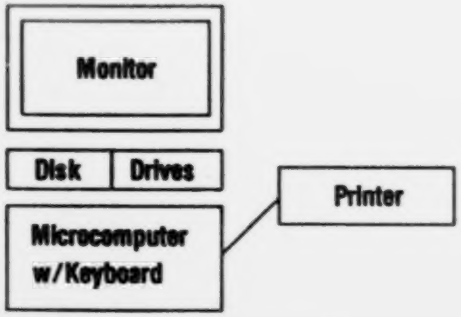
Major Types of Word Processors



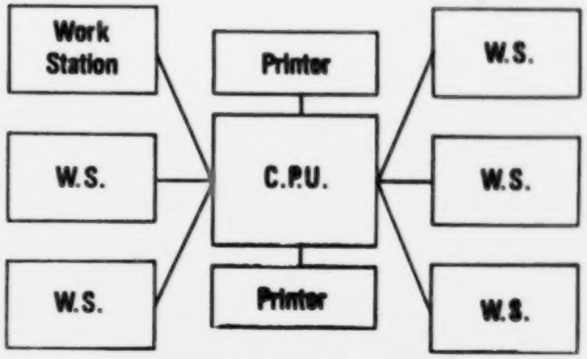
Electronic Typewriters


Monitor
Keyboard w/Memory
Printer

Text-editors


Monitor
Disk
Drives
Microcomputer w/Keyboard
Printer

Personal Computers


Work Station
Printer
W.S.
W.S.
C.P.U.
W.S.
W.S.
Printer
W.S.

Shared Logic Systems

Source: Microcomputer Business Applications, Mid-America Vocational Curriculum Consortium, Inc., 1986

TM6

EVALUATION MEASURES
FOR
WORD PROCESSING

COMPETENCY GOAL 8: The learner will use a word-processing program.

OBJECTIVE 8.1: Identify the advantages of using a word-processing program.

Test Item 008-8.1-01

INSTRUCTIONS TO STUDENTS: Read each of the following statements about word processing programs. Determine if each of the statements is true or false. Record the correct response (true or false) in the blank to the left of each statement.

_______ 1. With word processors, corrections can be made without retyping the entire document.

_______ 2. One main advantage of word processing is that mistakes can be corrected before the document appears on the paper.

_______ 3. Most word processors have a feature called wordwrap.

_______ 4. Most word processors have special features such as dictionaries, thesaurus, etc.

_______ 5. Most word processors cannot be used with a database for mail merging.

Test Item 008-8.1-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements about word processing. Determine if each of the statements is true or false, Record the correct response (true or false) in the blank to the left of each statement.

_______ 1. When you first use a word processor to enter text, the computer's RAM stores the text.

_______ 2. With a word processor, you can see the whole document, on which you are working, regardless what its length.

_______ 3. A word processor allows the operator to concentrate more about organizing ideas rather than the mechanics of writing.

_______ 4. In most cases, nothing is printed on paper until you are pleased with the final result.

_______ 5. Most word processing software for home or personal use are easier to use than those designed for business.

OBJECTIVE 8.2: Recognize word-processing terms.

Test Item 008-8.2-01

INSTRUCTIONS TO STUDENTS: Match the following terms with their definitions. Record the correct letter of the definition in the blank to the left of the term.

	TERMS		DEFINITIONS
______	1. Wordwrap	A.	A description of or file layout
______	2. Insert	B.	Look for a word or phrase
______	3. Format	C.	Words automatically go to next line without returning
______	4. Scrolling	D.	Consists of words, symbols, numbers, punctuation
______	5. Search	E.	Moves the line of text on and off the screen
______	6. Text	F.	A method of arranging characters, lines, punctuation, etc.
______	7. Edit	G.	Add characters, words, sentences
______	8. Directory	H.	Process of changing a document
		I.	Process used to space a set of characters so they are aligned
______	9. Document	J.	A list of items arranged for easy reference
______	10. Catalog	K.	A form or paper containing information about transaction
______	11. Default	L.	A component that allows you to create, modify, and print documents
______	12. Justify	M.	A value that is initially set by the program
______	13. Word processing		

Test Item 008-8.2-02

INSTRUCTIONS TO STUDENTS: Supply the correct answer for each of the following definitions in the blank provided.

1. A description of or file layout is ______________________________

2. To look for a word or phrase is to ______________________________

3. When words automatically go to the next line without returning, it is referred to as ____________________________

4. ____________________ consists of words, symbols, numbers, and punctuation.

5. ____________________ moves the line of text on and off the screen.

6. ____________________ a method of arranging characters, lines, punctuation, etc.

7. To add characters, words, and/or sentences is referred to as ____________________

8. The process of changing a document is called ____________________

9. A list of items arranged for easy reference is ________________

10. A form of paper containing information about a transaction is referred to as __________________________

11. A component that allows you to create, modify, and print documents _______________

12. A value that is initially set by the program is called ______________________

13. The process used to space a set of characters so they are aligned is referred to as ________________________

OBJECTIVE 8.3: Identify several applications in which a word-processing program can be used.

Test Item 008-8.3-01

INSTRUCTIONS TO STUDENTS: Read each of the following statements about word processing applications. List three examples for each statement that would apply.

1. List three operations a word processing program can perform.

2. List three examples in your home where a word-processing program would be helpful.

3. List three examples in your school where a word-processing program would be helpful.

4. List three examples of how word-processing programs have revolutionized the office.

5. List three examples of how word-processing programs have revolutionized the publishing industry.

Test Item 008.8.3-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements about the advantages of using a word processing program. List three reasons why a word processing program would be helpful.

1. An executive dictates a letter to his secretary knowing that there will be changes to be made.

____

____

____

2. A short story writer has decided to use a word-processing program for his next story.

____

____

____

3. The school secretary has decided to use a word-processing program to prepare school reports and letters.

____

____

____

4. All English students have been required to type their research papers.

____

____

____

5. A school teacher has decided to prepare all tests and worksheets using a word-processing program.

____

____

____

LETTER PROJECT
OBJECTIVES 8.4-8.7
SET 1

OBJECTIVE 8.4: Open a document and/or create a file.

Test Item 008-8.4-01

INSTRUCTIONS TO STUDENTS: Open a document and/or create a file for the following letter. Use modified block style with paragraph indentions. Use machine default margins. Top margin is 2 inches. Use your name in the closing.

Acme Oil and Gas
PO Box 345
Charlotte, NC 28210
Current Date

Mr. Thomas Aycock
4101 Sterling Road
Charlotte, NC 28212

Dear Mr. Aycock:

Our records show that you have not made your last month's payment of $40.05. We hope this is just and oversight on your part, and you will mail your remittance immediately.

You have been an excellent customer over the past three years, and we would not like to see your credit rating affected by this nonpayment.

If you have already mailed your payment, please disregard this notice.

Mr. Aycock, thank you for your past business; we look forward to continuing to serve you.

Cordially,

Your Name
Credit Manager

OBJECTIVE 8.5: Enter and edit text using appropriate command keys.

Test Item 008-8.5-01

INSTRUCTIONS TO STUDENTS: Recall the letter created previously and make the following changes.

1. Align the return address, complimentary closing, dictator's name, title and paragraph indentions at the left margin. This will change the letter style to block instead of modified block.
2. Change the mailing address to read by overtyping:

   Mrs. Martha S. Smith
   409 North Payne Street
   Lexington, NC 27292

3. Change the salutation to correspond to the new mailing address.
4. Change the amount owed to $140.50 instead of $40.05 and underline the new amount.
5. This letter is from Mrs. Susan Hinkle, Credit Manager.

OBJECTIVE 8.6: Store, retrieve, and update word processing files.

Test Item 008-8.6-01

INSTRUCTIONS TO STUDENTS: Save the letter created in Test Item 008-8.5-01 and change under the filename LETTER. Clear the computer's memory and retrieve the LETTER file to make sure the document was saved.

OBJECTIVE 8.7: Use available subprograms: dictionary, thesaurus, mailmerge, printer and/or screen utilities.

Test Item 008-8.7-01

INSTRUCTIONS TO STUDENTS: Use the dictionary and/or thesaurus to perform an analysis of your letter.

MANUSCRIPT PROJECT
OBJECTIVES 8.4-8.7
SET 2

OBJECTIVES 8.4: Open a document and/or create a file.

Test Item 008-8.4-02

INSTRUCTIONS TO STUDENTS: Open a document and/or create a file for the following manuscript. Center the title on Line 10 in all capitals. Triple space after the title. Use unbound manuscript format with side margins of one inch on both sides. Double space the body of the manuscript. Indent the paragraphs five spaces. If justification is available, justify the right margin.

A TRIP TO THE FLEA MARKET

It was a normal hot June Saturday afternoon, and I had absolutely nothing planned for the day. I picked up the morning paper out of boredom and began to look over the entertainment section.

In the "What's On for Today" column I noticed that there was to be a flea market held out at the old fairgrounds all day. Grabbing my stuff, off I went to see what a flea market was.

The parking lot was full, and it took me about five minutes to find a parking place. I paid my $1.50 at the gate and in I went to see what all these people had come to see.

Stuff, stuff, and more stuff everwhere you turned. Old clothes, old furniture, old tools, and lots of old-timers selling their wares. Many of the items would be classified as antiques or collectibles. Many of the things were like items that I remember seeing at my grandmother's home when growing up. It brought back fond memories.

It became apparent that even though items had price stickers on them, it was permissible to try and bargain the price down lower. As a matter of fact, dickering with the vendors seemed to be a major part of the fun for most of the shoppers.

I stopped at one booth and purchased a milk pitcher for $12 that was marked $15. It was fun, and I plan to return the next time the event is held.

OBJECTIVE 8.5: Enter and edit text using appropriate command keys.

Test Item 008-8.5-02

INSTRUCTIONS TO STUDENTS: Recall the manuscript previously typed and make the following changes.

1. Change the margins to leftbound manuscript format—left margin 1½ and right margin one inch.
2. If footer option is available, add the footer line: Flea Market Page #1.
3. In paragraph #1, delete the word "June".
4. Using the availabe block commands, move paragraph #5 above paragraph #4.
5. If a search and replace feature is available, search through the document for the word "market" and replace it with the word "sale".

OBJECTIVE 8.6: Store, retrieve, and update word processing files.

Test Item 008-8.6-02

INSTRUCTIONS TO STUDENTS: Save the manuscript created and changed under the filename MANUSCRIPT. Clear the computer's memory and retrieve the MANUSCRIPT file to make sure the document is saved.

OBJECTIVE 8.7: Use available subprograms: dictionary, thesaurus, mailmerge, printer and/or screen utilities.

Test Item 008-8.7-02

INSTRUCTIONS TO STUDENTS: Use the dictionary and/or thesaurus to perform an analysis of your report.

KEY TO TEST ITEMS
FOR
WORD PROCESSING

Test Item 008-8.1-01

1. T
2. T
3. T
4. T
5. F

Test Item 008-8.1-02

1. T
2. F
3. T
4. T
5. T

Test Item 008-8.2-01

1. C
2. G
3. F
4. E
5. B
6. D
7. H
8. A
9. K
10. J
11. M
12. I
13. L

Test Item 008-8.2-02

1. Directory
2. Search
3. Wordwrap
4. Text
5. Scrolling
6. Format
7. Insert
8. Edit
9. Catalog
10. Document
11. Word Processing
12. Default
13. Justify

Test Item 008-8.3-01

1. Addition and deletion of words, lines, characters
   Saving onto a diskette
   Printing a document

2. Writing letters
   Preparing shopping lists
   Making forms

3. Typing letters to parents
   Typing memos to faculty
   Preparing tests and worksheets

4. Saving production time
   Allowing changes without retyping entire document
   Allowing for mailmerge

5. Stories and books can be written without worring about technical aspect
   Allowing for more creativity
   Allowing for search and replacement features

Test Item 008-8.3-02

1. The letter does not have to be retyped—only the changes to be made.
   The letter can be saved for future reference.
   The letter can be integrated with database for mailmerge.

2. He/she may use search and find to change names of characters.
   He/she can print in rough-draft form for revision.
   He/she can use a spell checker to edit.

3. He/she can make templates of frequently used forms.

   He/she can print several copies without having to retype document each time.
   He/she can reduce amount of paper filed by saving on diskette.

4. Makes for easy readability by teacher.
   Allows students to print a rough draft for teacher revisions.
   Allows students to use various utilities such as spell checkers, thesaurus, etc.

5. Can rearrange test questions easily.
   Can save on diskette to reduce future typing.
   Can print originals for all students if needed.

Test Item 008-8.4-01

Checklist

__________ Used wraparound to enter text

__________ Used the return or enter key

__________ Indented paragraphs

__________ Set margins

__________ Set tabs

__________ Inserted blank lines

Test Items 008-8.5-01

Checklist

__________ Corrected errors by backspacing

__________ Deleted characters

__________ Inserted characters

__________ Inserted words

__________ Keyed over existing text

Test Item 008-8.6-01

Checklist

__________ Stored document

__________ Retrieved document

__________ Deleted document from storage

Test Item 008-8.7-01

Checklist

__________ Performed spelling functions

__________ Inserted text variables

Test Items 008-8.4-02—008-8.7-02

See checklists for Set 1

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COMPETENCIES
FOR
INTEGRATED SOFTWARE

COMPETENCY GOAL 9: The learner will use an integrated software program.

COMPETENCY OBJECTIVES

9.1 Identify the advantages of using an integrated software program.
9.2 Recognize integrated software terms.
9.3 Identify several applications which could be performed by an integrated software package.
9.4 Demonstrate the use of an integrated software package.
9.5 Integrate word-processing files with database files.
9.6 Integrate spreadsheet and word processing files.
9.7 Integrate word-processing and graphic files.
9.8 Integrate spreadsheet and graphic files.

STUDENT ACTIVITIES
FOR
INTEGRATED SOFTWARE

Orientation to Integrated Software

Planning Notes

1. Discuss the advantages of an integrated software program.
2. Discuss the terminology as it relates to integrated software.
3. List several applications for which an integrated software program can be used.
4. List the names of integrated software programs that are currently available.

Integrated Text Files

1. Search for a particular text file that has already been stored on a disk. TM1
2. Assemble the parts of the file that need to be merged with another text file.
3. Merge texts into one file.
4. Format the document for specified margins and spacing.
5. Store and print the new document.

Integrating Database File and Text File

1. Search for a particular text file and a database file that have already been stored on a disk.
2. Enter the selection criteria to obtain the needed data.
3. Transfer the information from the database to the next file using appropriate commands.
4. Edit the integrated file for correct format.
5. Store and print the integrated document.

Integrating Spreadsheet File and Text File

1. Search for a particular text file and a spreadsheet file that have already been stored on a disk.
2. Select the needed portion of the spreadsheet.
3. Transfer the information from the spreadsheet to the next file.
4. Edit the integrated file for correct format.
5. Store and print the new document.

Planning Notes

TM2

TM3

Integrating Graph File and Text File

Planning Notes

1. Use appropriate program to create a text file as specified in the instructions.
2. Name the text file and store to disk.
3. Use the appropriate program to create a graph as specified in the instructions.
4. Use the proper storage commands to store the graph as a file that can be integrated with the pre-stored file.
5. Merge the graph into the text file for the purpose of obtaining a printed copy.

TM4

TM5

Merging Database File and Text File

1. Use appropriate program to create a text file as specified in the instructions.
2. Name the text file and store to disk.
3. Use the appropriate program to create a database as specified in the instructions.
4. Use the proper storage commands to store the database as a file that can be integrated with the pre-stored text file.
5. Merge the database into the text file for the purpose of obtaining printed copies.

Integrating Prepared Database and Report Generator Program

1. Use appropriate program to create a database file as specified in the instructions.
2. Name the database file and store to disk.
3. Use the appropriate report program to select the fields and records to be used in preparing the report.
4. Use the print options given in the report program to define the format, title, margins, etc. necessary to print a copy of the report.
5. Print the report.

CHECKSHEET

INTEGRATED SOFTWARE

File Maintenance

Boot DOS ____________
Format a blank disk ____________
Do a diskcopy/backup ____________
Verify a disk ____________
Use the directory/catalog ____________
Print the directory/catalog ____________
Boot the application software ____________
Save a File ____________
Rename a graph file ____________
Delete a graph file ____________
Exit the application software ____________

Open/Retrieve/Quit

Open and name a destination file ____________
Identify and retrieve the source file ____________
Prepare the source file for transfer ____________
Quit/Exit the file(s) ____________

Integration/Communication Methods

Transfer data between different brands ____________
Transfer data within the same brand ____________
Transfer data via clipboard ____________
Transfer data via worksheet ____________

Integration/Communication Combinations

Combine word processing
and database data ____________
Perform problem solving projects ____________
Use electronic mail ____________

Printing

Print the source file ____________
Print the destination file ____________
Print screen ____________

CASE STUDY #1

When Nicole Clemins graduated from Ponderosa High School four and a half years ago, she was the senior class president. She promised to maintain a list of the graduating seniors and to plan the 5 year class reunion. It was a very small school with only 10 graduates.

With the reunion being only six months away, the job of planning the reunion is now at hand. Fortunately, Nicole has a personal computer with word-processing, spreadsheet, graphics, and database software.

She has drafted the following outline:

1. Outline the major activities.
2. Develop a database of graduates.
3. Write and send the initial invitation letters including a questionnaire on personal interests.
4. Construct a spreadsheet template to calculate costs and compare caterers.
5. Update the database from the returned questionnaires.
6. Write and send a registration letter.
7. From the response, update the database to include the following:
   A. Accommodations desired
   B. Number of guests
   C. Payment of registration, accommodations, and meals
8. Graph the costs.
9. Compile a report of the planned reunion for mailing to all graduates.

INSTRUCTIONS

ACTIVITY 1

Outline the major activities.

A. Produce the outline Nicole drafted.
B. Print two copies, one original and one working copy.

ACTIVITY 2

Develop a database of graduates

A. Create a database of graduates. (Remember to include all of the fields you will need later.)
   You are to make up the information for the 10 graduates.
B. Print the database.

ACTIVITY 3

Write and send the initial invitation letter with questionnaire on personal interests.

A. Include in the invitation letter such things as date, how much a person would be willing to spend per person on registration, two meals, and a band, will they need a hotel or motel room, etc.
B. Print the form letter for each of the 10 graduates with their names and addresses included.
C. Generate mailing labels for the envelopes for each of the 10 graduates (Use from the database)

ACTIVITY 4

A. Construct a spreadsheet template to calculate the costs and compare caterer's costs for the reunion. Include such things as a choice in the menu (for ex. filet mignon, steak/lobster, Beef Wellington, rib eye, chicken, etc.); such things as charge for a band (include charges for first hour of playing time, each extra hour, etc,); tips; taxes and any other information you feel is pertinent. Estimate 20 people will attend. Have at least 3 estimates from 3 different caterers.
B. Enter the formulae you will need.
COST PER PERSON = TOTAL COST/NUMBER OF GUESTS
FOUR HOUR BAND TOTAL = FIRST HOUR COST + EXTRA
GRATUITY = 15% OF FOOD BILL
TAX = 8% OF FOOD AND BAND
C. Manipulate the variable meal choices data in the spreadsheet to determine the best meal that you can get for the $50 that each class member is willing to pay. Keep a record of each manipulation to use later. Include a choice of meals in the registration letter, to be completed in Activity 6.

ACTIVITY 5

Update the database from the questionnaires returned. (This information you will have to make up.)

A. Edit the database from the responses Nicole received. For example
Name, RSVP, COMING, MOTEL/HOTEL, SPEND
B. Print the following reports from the database:
   1. All graduates planning to attend the reunion
   2. All graduates planning to attend the reunion from out of state
   3. Print labels for all graduates planning to attend the reunion by ZIP Code. (Assume that those who said they were planning to attend the reunion are the only ones who will attend.)

ACTIVITY 6

Write and send a registration letter.

A. Compose a registration form letter. The following items are the bare essentials; you may include others as well.
   1. Date: August 15, 1989
   2. Location: Ponderosa Inn, 4122 Billings Avenue, Arlington, WA 98403
   3. MEAL CHOICE: (Choose the meal closest to $50 listed on the spreadsheet.)
   4. Name of the band (you make up a name) and activities of the evening (You determine the activities.)
   5. Ask whether or not the class members need accommodations at the Ponderosa Inn at $45 per night, or the Lone Pine Motel at $35 per night. Ask them to send the registration fee (number of guests * fee) and one night's lodging ($5, or $35 on the choice of hotel/-motel) by check or money order.

B. Print the registration form letter with the names and addresses of each graduate.

ACTIVITY 7

After receiving the registration material update your database:

A. Modify and update the database from the data received from the graduates. (You make up.)
B. Print a report on all guests, total paid.
C. Print a report on all guests staying at the Ponderosa Inn, room payment, and total payments.
D. Print a report on all guests staying at the Lone Pine Motel, room payment, and total payments.
E. Print a guest list for the caterer.

ACTIVITY 8

Graph the costs.

A. Make a graph to compare guests staying at the Lone Pine Motel with those staying at the Ponderosa Inn.
B. Make a graph to compare the cost of the three caterers.
C. Make a graph of the total costs by categories of the caterer you chose: FOOD PER PERSON, FIRST HOUR BAND, EXTRA HOURS, GRATUITY, TAX.

ACTIVITY 9

Compile a report for mailing to all participants of the reunion.

A. Summarize the reunion in report format.
B. Transfer the spreadsheet into the report using integration.
C. Include in the mailing a copy of the graph of cost comparison.
D. Include the names of participants.
E. Print two copies one for yourself, one to submit to me.
F. Compose a title page.
G. Print a list of all files created for this project.
H. Attach the title page and list of files and submit the assembled report to me.

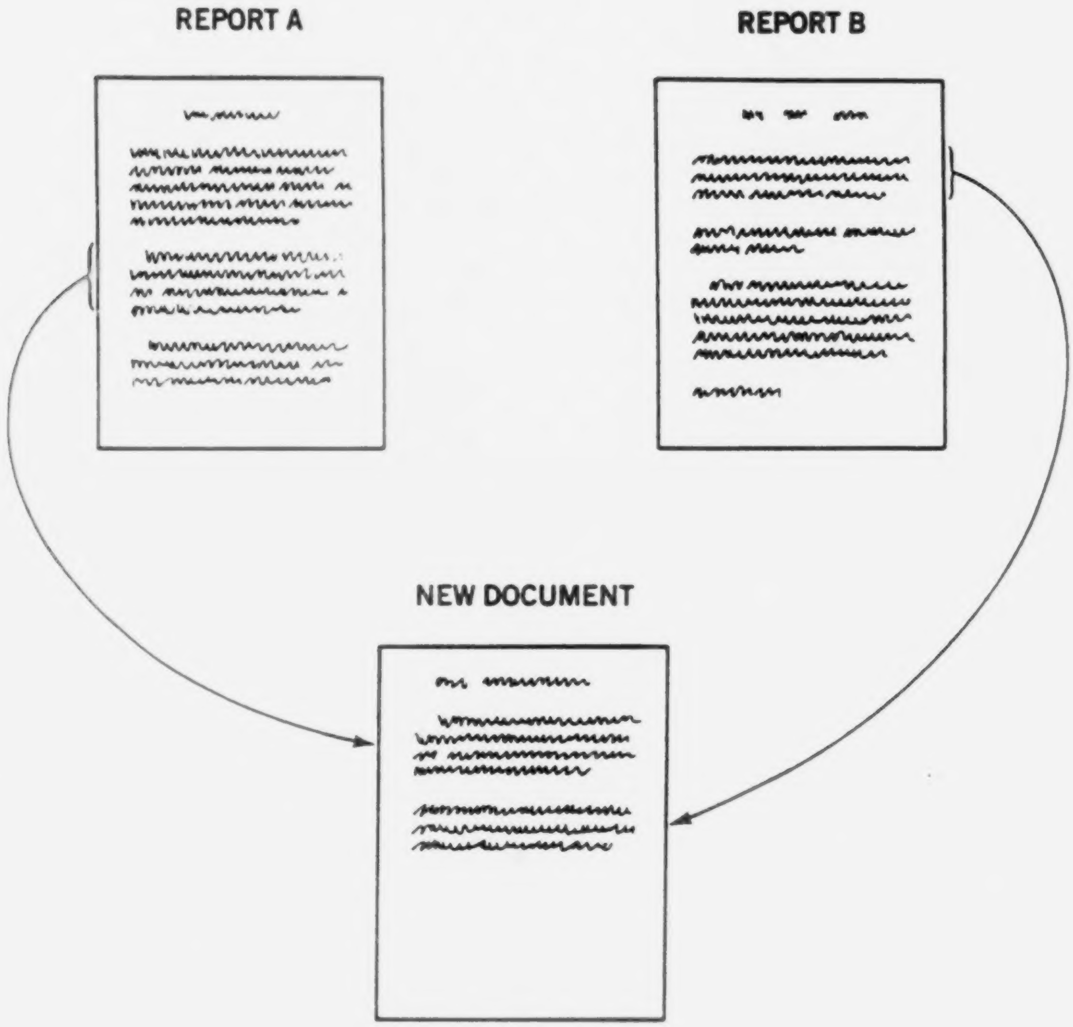
Source: **Microcomputers A Practical Approach to Software Applications,** Gregg McGraw Hill Publishing Company.

CHECKLIST FOR CASE STUDY 1

Activity	**Description**	**Completed**
1	Outline	______
2	Database	______
3	Invitation letter	______
3	Mailing labels	______
4	Spreadsheet template	______
5	Report of graduates planning to attend	______
5	Report of graduates attending out of state	______
5	Mailing labels	______
6	Registration letter	______
6	Mailing labels	______
7	Report on all guests paid	______
7	Report on all guests paid staying at Ponderosa Inn with room payment and total payment included	______
7	Report on all guests paid staying at Lone Pine Motel with room payment and total payment included	______
7	Guest list for caterer	______
8	Graph to compare guests staying at Ponderosa Inn with those staying at Lone Pine Motel	______
8	Graph comparing costs of 3 caterers	______
8	Graph of caterer you have chosen based on food per person and first hour band	______
9	Summary of reunion in report format	______
9	Spreadsheet transferred into summarized report format	______
9	Copy of graph cost comparison	______
9	Names of participants	______
9	Title page	______
9	List of all filenames used in project	______

TM1

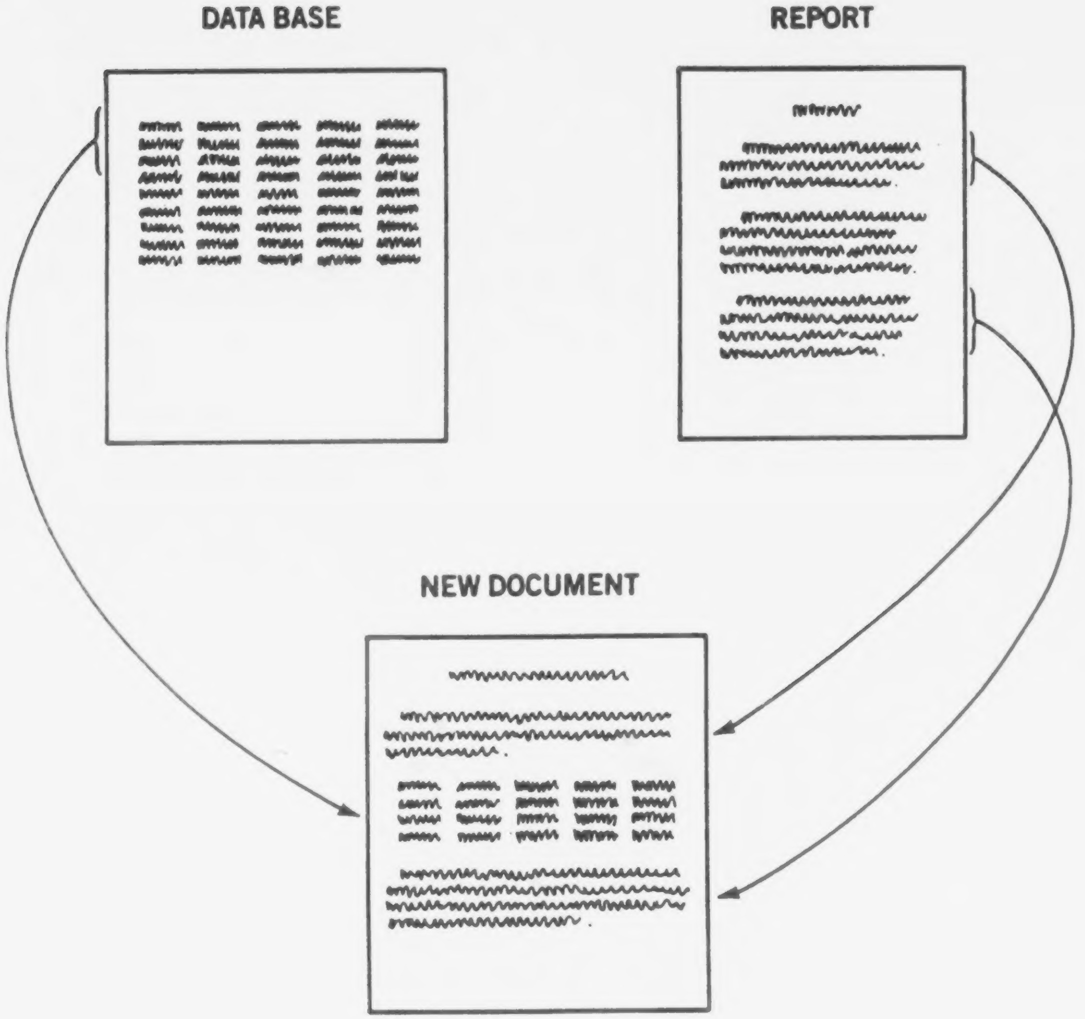
INTEGRATING A WORD PROCESSING DOCUMENT WITH A WORD PROCESSING DOCUMENT


REPORT A
REPORT B
NEW DOCUMENT

Source: **Applications Using the Personal Computer**, South-Western Publishing Company, 1988.

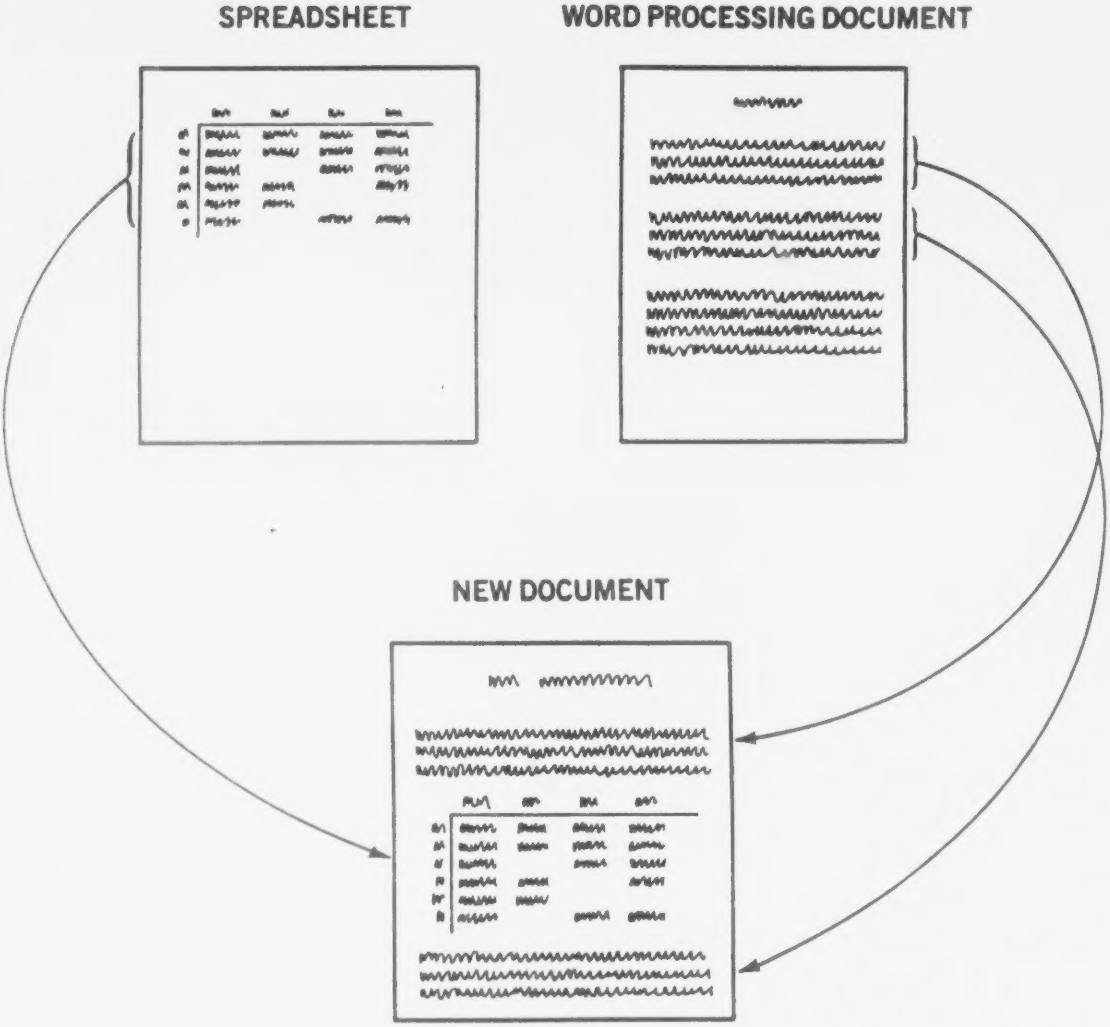
TM2

INTEGRATING A DATA BASE WITH A WORD PROCESSING DOCUMENT


DATA BASE
REPORT
NEW DOCUMENT

Source: **Applications Using the Personal Computer**, South-Western Publishing Company, 1988.

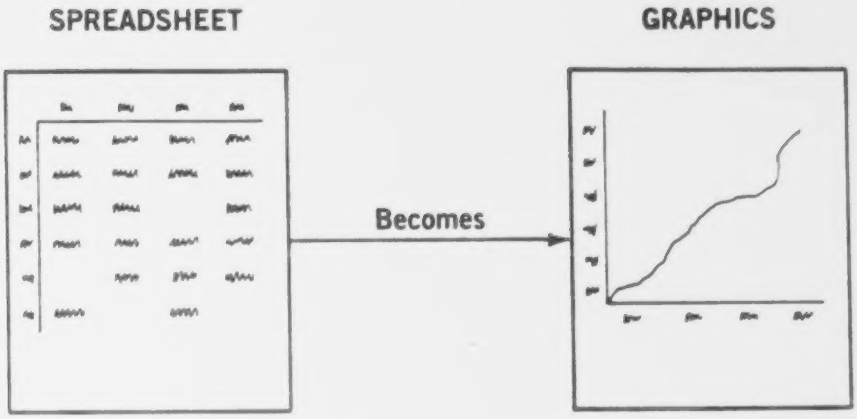
INTEGRATING A SPREADSHEET WITH A WORD PROCESSING DOCUMENT


SPREADSHEET
WORD PROCESSING DOCUMENT
NEW DOCUMENT

Source: **Applications Using the Personal Computer**, South-Western Publishing Company, 1988.

TM4

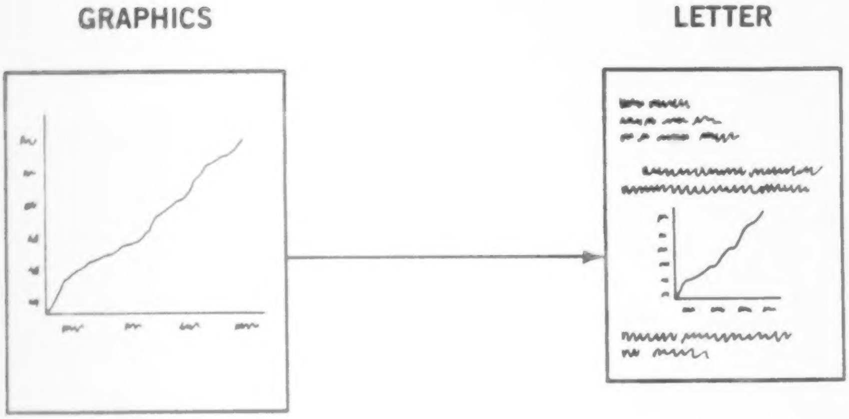
INTEGRATING A SPREADSHEET WITH GRAPHICS


SPREADSHEET
GRAPHICS
Becomes

Source: **Applications Using the Personal Computer**, South-Western Publishing Company, 1988.

TM5

INTEGRATING GRAPHICS WITH A WORD PROCESSING DOCUMENT



Source: **Applications Using the Personal Computer,** South-Western Publishing Company, 1988.

EVALUATION MEASURES

FOR INTEGRATED SOFTWARE

COMPETENCY GOAL 9: The learner will use an integrated software program.

OBJECTIVE 9.1: Identify the advantages of using an integrated software program.

Test Item 009-9.1-01

INSTRUCTIONS TO STUDENTS: Read each of the following statements and record the correct response true or false in the blank provided.

__________ 1. Integrated microcomputer software is general purpose software, capable of handling a variety of applications.

__________ 2. With integrated software, the user can work on only one project at a time.

__________ 3. Integrated software is not intended for users who must work with numbers, graphics, and text at the same time.

__________ 4. In integrated software, the window that you are working on is called the action window.

__________ 5. Scrolling is the method by which the individual components of an integrated software package share data.

Test Item 009-9.1-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements and record the correct response true or false in the blank provided.

__________ 1. Data or files can be transferred between different brands of application software.

__________ 2. ASCII stands for American Symbolic Category for Information Interchange.

__________ 3. All-in-one integrated applications software packages combine one or more of the common types of application software—word processing, spreadsheet, graphics, database, and communications.

__________ 4. Two common data interchange formats are ASCII and DIF.

__________ 5. Integration is the transfer of data between applications.

OBJECTIVE 9.2: Recognize integrated software terms.

Test Item 009-9.2-01

INSTRUCTIONS TO STUDENTS: Supply the missing word for each of the following definitions.

__________ 1. Area in computer's memory that stores sections of files which will be transferred to other files

__________ 2. Integration is accomplished via electronic clipboard

__________ 3. Uses a very large worksheet as the basis for integration

__________ 4. Used for computer representation of letters, numbers, and special characters

__________ 5. Data Interchange Format

__________ 6. Sending file

__________ 7. Receiving file

__________ 8. To combine text or data from two or more separate files

__________ 9. The software that is the integration of two or more of the six productivity tools

__________ 10. A program which can do only one function at a time

Test Item 009-9.2-02

INSTRUCTIONS TO STUDENTS: Match the correct term with the correct definition. Supply the correct letter in the blank provided.

	TERMS		DEFINITIONS
_____	1. Clipboard	A.	Sending file
_____	2. Partially integrated applications software	B.	Area in computer's memory that stores sections of files which will be transferred to other files.
_____	3. Fully integrated applications software	C.	Data Interchange Format
_____	4. ASCII	D.	Integration is accomplished via electronic clipboard
_____	5. DIF	E.	Receiving file
_____	6. Source file	F.	A program that can do only one function at a time
_____	7. Destination file	G.	Uses a very large worksheet as the basis for integration
_____	8. Merge	H.	The software that combines two or more of the six productivity tools
_____	9. Integrated software	I.	Used for computer representation of letters, numbers, and special characters
_____	10. Single function software	J.	To combine text or data from two or more separate files

OBJECTIVE 9.3: Identify several applications which could be performed by an integrated software program.

Test Item 009-9.3-01

INSTRUCTIONS TO STUDENTS: In each of the following cases, list three ways an integrated software package could be of help.

1. Form letter with merged names and addresses

____

____

____

2. Basketball team memo and mailing labels

____

____

____

3. Request for a college catalog and mailing

____

____

____

4. Telephone call list by insurance carrier for medical services

____

____

____

5. Students form a personal computer club

____

____

____

Test Item 009-9.3-02

INSTRUCTIONS TO STUDENTS: Read the following case study concerning integration. Prepare an outline relating to the case study.

You graduated from high school in 1985, and you agreed to make plans for the five-year class reunion since there were only 30 graduates. You own a computer and have decided to computerize all your plans. Before you attempt to place any information into the computer, however, you have decided to draft an outline.

Source: **Microcomputers: A Practical Approach to Software Applications.** Gregg/McGraw-Hill Publishing Company.

OBJECTIVE 9.4: Demonstrate the use of an integrated software package.

Test Item 009-9.4-01

INSTRUCTIONS TO STUDENTS: Record the date competency was demonstrated on each of the following:

FILE MAINTENANCE/DOS

Boot DOS ____________
Format a data disk ____________
Do a diskcopy/backup ____________
Verify a disk ____________
Use the directory/catalog ____________
Print the directory/catalog ____________
Boot the application software ____________
Save a file ____________
Rename a graph file ____________
Delete a graph file ____________
Exit the application software ____________

OPEN/RETRIEVE/QUIT

Open and name a destination file ____________
Identify and retrieve the source file ____________
Prepare the source file for transfer ____________
Quit/Exit the file(s) ____________

Source: Gregg McGraw-Hill Publishing Company

Test Item 009-9.4-02

INSTRUCTIONS TO STUDENTS: Record the date competency was demonstrated on each of the following:

Transfer data between different brands ____________
Transfer data within the same brand ____________
Transfer via clipboard ____________
Transfer via worksheet ____________
Combine word-processing and database data ____________
Perform problem-solving projects ____________
Use electronic mail ____________
Print the source file ____________
Print the destination file ____________
Print screen ____________

OBJECTIVE 9.5: Integrate word-processing files with database files.

Test Item 009-9.5-01

INSTRUCTIONS TO STUDENTS: The following exercise will use an integrated word-processing program and a database program to append two separate sets of data into one.

Part #1: Word Processing Letter

Type the following letter as shown. Store the letter with the filename "Apology."

Current Date

Mr. Jim Thoreau
North State High School
Brandon, NC 27874

Dear Jim:

Please accept my apology for the delay in sending you the information you requested concerning the computer applications curriculum. Our staff has just finalized the course outline and objectives for this course.

In addition to the information, I am sending you a list of teachers who would be available to assist you in your planning. If you should need additional assistance, I am sure any of these instructors would be willing to help.

Sincerely,

Walter Brannon, Consultant
Business and Office Education
State Department of Public Instruction

xx

Enclosure

Part #2 Database Application

Using the database available, type the following data. Save the table under the filename "Instructors."

Name
Phone No.
Workshop Specialty
School
City

Jeanne Gray
555-7681
Word Processing
Washington High
Washington

Janet Foreman
345-6185
Integrated Software
Clemmons
Asheville

Ellen Minshue
846-6123
Database
St.Mary's
Greensboro

Charlotte Green
765-3976
Spreadsheet
Davis
Springfield

James Jones
816-2199
Graphics
T. Jefferson
Charlotte

Ann Alligood
345-8677
Integrated Software
G. Washington
Dunn

Sylvia Arnold
675-4321
Telecommunications

Claudia McIntyre
872-8181
Project Management

Monica Stevens
764-4324
Utility Applications

Using the two files, "Apology" and "Instructors," merge (append) the document "Instructors" two lines below the second paragraph in the document "Apology."

Print out a copy of the new merged document.

Test Item 009-9.5-02

INSTRUCTIONS TO STUDENTS: The following exercise will integrate a word processing file and a database file.

Part #1: Creation of Word-Processing File

Type the memorandum below using the available word-processing program. Store the document under the filename "Memo17."

TO: Business Education Staff Members
FROM: Jennifer Modlin, Computer Coordinator
SUBJECT: Staff Development Computer Training
DATE: Current Date

Several faculty members have shown a great deal of interest in computer assisted instruction (CAI) in their classrooms. Because of this interest, I have decided to concentrate this year's staff development for your department on CAI.

Attached is a partial list of the software that we have available. This list shows the primary target area so that you can preview these before our sessions.

I will be contacting Mrs. Jenkins, your department chairperson, concerning the time schedule.

xx

Part #2: Database Application

The following document is to be created using the available database program. Store the document under the filename "Software."

Software Title	Hardware	Target Area
Business Address Manager	Apple	Computer Applications I
AppleWorks	Apple	Computer Applications I
Varsity Scripsit	Tandy	Keyboarding/Typewriting
PFS:Write	Apple	Adminstrative Support Occupations I
Accounting Principles	Tandy	Computerized Accounting I
Micro Math	Apple	Business Math
Principles of Recordkeeping	Tandy	Recordkeeping
Word Perfect	IBM	Shorthand I/II
Data Entry Activities	Apple	Computer Applications I
Visicalc	Apple	Computer Applications I
Wordstar	IBM	Computer Applications I
Display Write 4	IBM	Advanced Typewriting/Word Processing

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Using the two files, "Memo17" and "Software," merge the database file into the word-processing file two lines below the last paragraph. Edit the file for correct format. Print a copy of the integrated document.

OBJECTIVE 9.6: Integrate spreadsheet and word-processing file.

Test Item 009-9.6-01

INSTRUCTIONS TO STUDENTS: The following exercise will integrate a word-processing file and a spreadsheet file.

Part #1: Word Processing

Type the following document using the available word-processing program.

Store the letter under the filename "District."

Current Date

Ms. Hattie Blue, Lead Consultant
Business and Office Education
State Department of Public Instruction
592 Education Building
Raleigh, NC 27603-1712

Dear Ms. Blue:

Thanks for supporting all of our district chapters and advisors. We again had a very successful district leadership conference. We had 25 schools present with a total attendance of 550. The workshop leaders were very informative and extremely interesting.

Our expense report is attached.

Again, I was excited and pleased to have taken a small part in making this conference a success.

Sincerely,

John Adams, Vice-President
District I
Future Business Leaders of America

xx

Enclosure

Part #2: Spreadsheet

Type the following spreadsheet using the available spreadsheet program.

Store the spreadsheet under the filename "Report."

EXPENSE REPORT

Name:	John Adams, Vice President
Address:	Green Street, Denver, CO 27762-6415
PURPOSE OF CONFERENCE:	Provide Leadership Training
Conference Date:	October 25, 19–

Expense	Date: 10/5	10/6	10/25	Totals
Fee for keynote speaker			150.00	150.00
Postage	25.00	10.00		35.00
Name tags	5.00	10.00		15.00
Refreshments		100.00		100.00
Door prizes	25.00			25.00
Programs	85.00			85.00
Entertainment			25.00	25.00
Envelopes, letterhead	45.00		10.00	55.00
Workshop signs	10.00			10.00
TOTAL EXPENSES	195.00	120.00	185.00	500.00

Signature..

Using the letter named "District" and the spreadsheet named "Report," transfer the spreadsheet to a double space below paragraph two in the "District" letter. Print a copy

Test Item 009-9.6-02

INSTRUCTIONS TO STUDENTS: The following exercise will integrate a word-processing file and a spreadsheet file.

Part #1: Word Processing

Type the following document using the available word-processing program.

Store the letter under the filename "Report25."

CEDAR GROVE MEMORIAL HOSPITAL
ST. LOUIS, MISSOURI
LOANS
JANUARY 31, 19--

The Hospital Board of Cedar Grove Memorial Hospital of the State of Missouri issued the following loans during January, which are outstanding as of January 31, 19--. The principal amount of the loans total $19,289, at an average interest rate of 11.9%

Part #2: Spreadsheet

Type the following spreadsheet using the available spreadsheet program.

Store the spreadsheet under the filename "Expense."

Outstanding Loans

Interest Per Annum	Loan Numbers	Principal Amount
11.9	148	$1976
12.8	389	$1878
15.2	378	$2982
9.5	127	$3567
8.5	257	$4987
13.5	475	$3899

Total	$19,289
Average Interest	11.9%

Using the report named "Report25" and the spreadsheet named "Expense," transfer the spreadsheet to the bottom of the "Report25" report. Print a copy.

Source: **Applications Using the Personal Computer**, South-Western Publishing Company, 1988.

OBJECTIVE 9.7: Integrate word-processing file and graphic file.

Test Item 009-9.7-01

INSTRUCTIONS TO STUDENTS: The following exercise will integrate a word-processing file and a graphic file.

Part #1: Word Processing

Type the following document using the available word-processing program.

Store the memo under the filename "Memo1."

January 4, 19–

Bob Morgan

NEUROLOGY SURGERY SUPPLIES

This is our first attempt to show graphically the use of surgery supplies. This has been done at the request of the Hospital Board. Please take a look at this and see if it meets the needs of the board.

MITCHELL GREEN

xx

Part #2: Graphic

Prepare a bar graph using the following data and save under the filename "Supplies."

NEUROLOGY SURGERY SUPPLIES

GAUGE	448
LP TRAY	7
GLOVES	603
SUTURES	682

Using the memo named "Memo1" and the graphic named "Supplies," transfer the graphic to the bottom of the memo. Print a copy.

Source: **Applications Using the Personal Computer**, South-Western Publishing Company, 1988.

Test Item 009-9.7-02

INSTRUCTIONS TO STUDENTS: The following exercise will integrate a word-processing file and a graphic file.

Part #1: Word Processing

Type the following document using the available word-processing program.

Store the memo under the filename "Memo2."

June 30, 19–

Jim Smith

JANUARY UTILITY EXPENSES

The utility statements for June have arrived. We at Sterile Products, Inc. are concerned about the increasing rise in the telephone costs. Please strive to reduce long distance calls whenever possible.

Thank you for your cooperation.

JIM GRAY

xx

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Part #2: Graphic

Prepare a bar graph using the following data.

Store under the filename "Graph2."

JANUARY UTILITY EXPENSES

HEAT	$2,677.00
ELECTRICITY	$2,254.88
PHONE	$1,675.45

Using the memo named "Memo2" and the graph named "Graph2," transfer the graph to the bottom of the memo. Print a copy.

Source: **Applications Using the Personal Computer,** South-Western Publishing Company, 1988.

OBJECTIVE 9.8: Integrate spreadsheet and graphic files.

Test Item 009-9.8-01

INSTRUCTIONS TO STUDENTS: The following exercise will integrate a spreadsheet file and a graphic file.

Part #1: Spreadsheet

Type the following data using the available spreadsheet program.

Store the spreadsheet under the filename "Spreadsheet 1."

NEUROLOGY AND SURGERY SUPPLIES USED 7/1 TO 7/5

ITEM	1	2	3	4	5	AVG	TOTAL
Gauge	175	350	289	976	452	448	2242
LP Tray	2	5	7	8	12	7	34
Gloves	234	560	675	789	756	603	3014
Sutures	678	987	456	890	397	682	3408

Part #2: Graphic

Prepare a pie chart using the TOTAL column of the spreadsheet named "Spreadsheet 1."

Source: **Applications Using the Personal Computer,** South-Western Publishing Company, 1988.

Test Item 009-9.8-02

INSTRUCTIONS TO STUDENTS: This exercise will integrate a spreadsheet file and a graphic file.

Part #1: Spreadsheet

Type the following data using the available spreadsheet program.

Store the spreadsheet under the filename "Spreadsheet 2."

Player	Field Goals	Free Throws	Total Points
Ore	125	46	
Smith	100	35	
Johnson	98	24	
Green	89	20	
Bonds	80	15	
Jones	45	10	

Part #2: Graph

Prepare a pie chart showing the results of the Total Points for each player in the spreadsheet named "Spreadsheet 2."

KEY TO TEST ITEMS
FOR
INTEGRATED SOFTWARE

Test Item 009-9.1-01

1. T
2. F
3. F
4. F
5. F

Test Item 009-9.1-02

1. T
2. F
3. T
4. T
5. T

Test Item 009-9.2-01

1. Clipboard
2. Partially Integrated Applications Software
3. Fully Integrated Applications Software
4. ASCH
5. DIF
6. Source File
7. Destination File
8. Merge
9. Integrated Software
10. Single Function Software

Test Item 009-9.2-02

1. B
2. D
3. G
4. I
5. C
6. A
7. E
8. J
9. H
10. F

Test Item 009-9.3-01

1. Save production time typing letters
   Computer automatically merges addresses
   Cost factor

2. Same memo can be sent without retyping
   Can be used for scouting purposes
   Saves time for coach to perform other duties

3. Same letter can be sent to all colleges by allowing computer to merge names and addresses
   Saves guidance counselor time for other duties
   Cost factor

4. Access to all doctors, pharmacists and hospital personnel for distribution purposes
   Telephone numbers can be set up in telecommunications for automatic dialing
   Saves travel time

5. Can use bulletin board service
   Can access database services through telecommunications
   Can have pen pals

Test Item 009-9.3-02

1. Outline
2. Develop a database of graduates
3. Write and send the initial invitation letters including a questionnaire on personal interests
4. Construct a spreadsheet template to calculate costs
5. Update the database from the returned questionnaire
6. Write and send a registration letter
7. Update the database from the responses
   A. Accommodations desired
   B. Number of guests
   C. Payment for guests, accommodations, meals
8. Graph the costs
9. Compile a report and mail to all graduates

Test Item 009-9.4-01

Answers will vary according to dates competencies on checklist are compiled.

Test Item 009-9.4-02

Answers will vary according to dates competencies on checksheet are completed.

Test Item 009-9.5-01

Checklist

______ Entered word-processing document
______ Entered database document
______ Integrated word processing and database

Test Item 009-9.5-02

Use same checklist as for 009-9.5-01

Test Item 009-9.6-01

Checklist

______ Entered word-processing file
______ Entered spreadsheet file
______ Integrated word processing and spreadsheet

Test Item 009-9.6-02

Use same checklist as for 009-9.6-01

Test Item 009-9.7-01

Checklist

______ Entered word-processing file
______ Entered graph information
______ Integrated word processing and graph

Test Item 009-9.7-02

Use same checklist as for 009-9.7-01

Test Item 009-9.8-01

Checklist

______ Entered spreadsheet
______ Entered graph information
______ Integrated spreadsheet and graph

Test Item 009-9.8-02

Use same checklist as for 009-9.8-01

PARTIAL LISTING OF REFERENCES
FOR
INTEGRATED SOFTWARE

TEXTBOOKS

Allen and Klooster. **MicroTools.**
South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1-800-543-7972. 1989.

Beil, Donald. **Using Applications Software: An Introduction Featuring Framework.**
McGraw-Hill Publishing Company, 1221 Avenue of Americas, New York, NY 10020. 1-800-334-7344. 1986.

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Que Corporation, 11711 North College Avenue, Carmel, IN 46032. 1-800-428-5331. 1988.

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Zimmerman and Conrad. **Understanding and Using Microcomputers.**
West Publishing Company, 155 D SandLazaro, Sunnydale, CA 94086. 1-408-992-0824. 1986.

SOFTWARE

Ability Plus. Migent, Inc., PO Box 6062 Incline Village, NV. 89450.

Aura. Softrend, Inc., 617 West Main Street, PO Box 1462, Charlottesville, VA 22901.

Deskmate and DeskMate Workgroup Companion.
Tandy Corporation, 401 NE 38th Street, Fort Worth, TX 76106-9970. 1-408-321-3133.

Enable. The Software Group.Dept. J., Northway Ten Executive Park, Ballston Lake, NY. 12019.

Framework.

McGraw-Hill Integrated Software. McGraw-Hill Publishing Company, 1221 Avenue of Americas, New York, NY 10020. 1-800-334-7344.

Microsoft Works. Microsoft Corporation. 16011 NE 36th Way, Box 97017, Redmond, WA. 98073. 1-800-882-8080.

MicroTools. South-West Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1-800-543-7972.

Open Access.

PFS: First Choice. Software Publishing Corporation, 1901 Landings Drive, Mountain View, CA 94043.

Q & A. Turner Hall Publishing.

Smart Software System.

Symphony. Lotus Development Corporation, 161 First Street, Cambridge, MA 02142.

Wordperfect Executive. Wordperfect. 228 W. Center Street, Orem, UT 84057. 1-800-225-5000.

TABLE OF CONTENTS
FOR
TELECOMMUNICATIONS

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COMPETENCIES
FOR TELECOMMUNICATIONS

COMPETENCY GOAL 10: The learner will identify telecommunications, services; describe the hardware/software, and demonstrate a variety of tasks using a simulation.

COMPETENCY OBJECTIVES

10.1 Identify the advantages of using telecommunications services.

10.2 Recognize telecommunications terms.

10.3 Identify various types of telecommunications.

10.4 Identify and describe the hardware and software necessary for telecommunications.

10.5 Demonstrate a variety of tasks using a telecommunications simulations.

COMPETENCY GOAL 11: The learner will analyze the telecommunications field.

COMPETENCY OBJECTIVES

11.1 Analyze the legal, ethical, and social issues which may arise from telecommunications technology.

11.2 Summarize the historical development of telecommunications.

COMPETENCY GOAL 12: The learner will access a database service/bulletin board.

COMPETENCY OBJECTIVES

12.1 Describe the process of preparing for database/bulletin board access (scope, topic, search criteria, etc.).

12.2 Demonstrate telecommunication linkage, log-on/off procedures, search a database, download, and print a database/bulletin board file.

COMPETENCY GOAL 13: The learner will use voice and/or electronic mail.

COMPETENCY OBJECTIVES

13.1 Create a message for voice/electronic mail.

13.2 Demonstrate telecommunication linkage, log-on/off procedures, and transmit/retrieve messages.

COMPETENCY GOAL 14: The learner will perform image transmission.

COMPETENCY OBJECTIVES

14.1 Create image materials.

14.2 Demonstrate telecommunications linkage and log-on/off procedures and transmit image(s).

STUDENT ACTIVITIES
FOR
TELECOMMUNICATIONS

Introduction to Telecommunications	**Planning Notes**
1. Define telecommunications. 2. Discuss the advantages of telecommunications. 3. Discuss terminology as it relates to telecommunications.	HO1, HO2, T1 T2, T3, T4, T5, T6, T7, T8, T9, T10, T11
4. Discuss types of telecommunications and define each.	HO3, HO4, H05 T12
5. Identify and describe the hardware and software necessary for telecommunications.	HO6, HO7, HO8, T13, T14, T15, T16, T17, T18, T19, T20, T21
6. Use a telecommunications simulation.	
Analyzing the Telecommunications Field	
1. Discuss the legal, ethical, and social issues which may arise from telecommunications technology.	T22, T23, T24
2. Summarize the historical development of telecommunications.	T25, T26, HO11

Orientation and Accessing a Database Service/Bulletin Board	**Planning Notes**
1. Review the equipment, software, and subscription service that are necessary to access a database service/bulletin board.	HO9
2. Discuss the process of preparing for database/bulletin board access (scope, topic, criteria, etc.).	T27
3. Demonstrate how to access a database service/bulletin board.	
4. Use a News Retrieval Service.	HO10
Using Voice and/or Electronic Mail	
1. Compose a message for voice/electronic mail.	HO12, T28, T29
2. Use an electronic mail service.	
3. Access voice/electronic mail.	
Performing Image Transmission	
1. Discuss image transmission material.	T30
2. Access and transmit image(s).	

CONDUCTING COMMUNITY SURVEY ON TELECOMMUNICATIONS

Conduct a brief survey of local businesses using telecommunications in the local area and write a short report on how it is being utilized.

Possible questions to include in the survey:

A. What types of applications are being used?

B. What types of hardware are being used?

C. What software programs are being used?

D. What modes of transmission are being used?

E. What baud rate is being used?

Source: **Introduction to Telecommunications,** Student Manual, Mid-American Vocational Curriculum Consortium, Inc.

CAREERS IN TELECOMMUNICATIONS

Careers in Telecommunications—Using the **Occupational Outlook Handbook,** business magazines, and want ads, research a career in telecommunications. Write a report with footnotes that includes the following:

A. Job title

B. Job description

C. Educational needs

D. Job qualifications

E. Salary range

F. Career advancement opportunities

TYPES OF TELECOMMUNICATIONS GROUPED

Four major types of telecommunications:

1. Voice—telephony-the electrical transmission of speech over a distance
2. Data—letters, facts—from one location to another, usually from one computer to another
    a. Electronic mail—process of using the computer to send messages to another person's "mailbox" and to receive messages to one's "mailbox" electronically over telephone lines
    b. Bulletin board—process of posting and reading messages on the computer system, ideas and announcements are shared electronically
    c. Teleconferencing—utilizes some of the best features of electronic mail, bulletin boards, and the branching capabilities of microcomputers for rapid electronics networking and information exchange
    d. Online retrieval services—process of searching for and gathering information from a variety and quantity of databases. Examples include Dow-Jones, The Source, CompuServe, DIALOG, and Bibliographical Retrieval Services.
3. Message—send messages in data form; that is, telegrams, teletypewriter, voice
4. Image—send messages in facsimile or video form

HO-4

THE MODERN TELEPHONE FOR HOME AND BUSINESS

Look at the modern telephone and some of its features. Contact your local phone company. If there is not a brochure available, ask the telephone company if the following services are available (some of these features are available for the home user and some are restricted to a business system). Find out what the cost is for each feature. Write a short report on the results of your research.

A. Automatic call forwarding

B. Automatic call stacking

C. Automatic call back

D. Telephone number retention

E. Pushbutton station selection

F. Call waiting signal

G. Outgoing call restriction

H. Call holding

I. Third party add-on

J. Charge listing by stations

K. Pushbutton-to dial-pulse conversion

L. Abbreviation (speed) dialing

M. Automatic call transfer

N. Distinctive ringing

O. Automatic least-cost routing

TELECOMMUNICATIONS TECHNOLOGY AND DEVICES

A. You will review a 15-minute presentation on telecommunications called **Telecommunications Technology and Devices.** Questions will be provided regarding the presentation.

B. Complete the QUESTIONS FOR CLASS DISCUSSION, p. 13.

Source: **Telecommunications Technology and Devices,** by Rollie Cox and Harry R. Moon, MPC Educational Publishers, Bronx, N. Y.

RESEARCH COMMUNICATION HARDWARE

Research a piece of hardware used in telecommunications using computer magazines and brochures from vendors. Write a two-page report.

Specific items that need to be included are the following:

A. Type of hardware and cost

B. Application(s)

C. Businesses where hardware may be found

D. Training time needed to use hardware

E. Features advertised

F. How new hardware compares to previous models

Source: **Introduction to Telecommunications—Student Manual,** Mid-American Vocational Curriculum Consortium, Inc.

HO-7

RESEARCH COMMUNICATIONS SOFTWARE

Using magazines and vendor brochures, research the types of software currently being used in business and industry for communications. Write a short report on the software package. The following questions should be answered.

A. What are the features of the software package?

B. How much does it cost?

C. What computer systems will it run on?

D. What are the business applications?

E. Who develeped the software?

F. What are the advantages of the software?

G. What are the disadvantages of the software?

H. What is the availability of the software?

Source: **Introduction to Telecommunications—Student Manual.**

PREPARE A POSTER ON TELECOMMUNICATIONS SOFTWARE

Research communications software currently being used in business and industry. Using computer or business magazines and vendor brochure, prepare a poster showing at least eight types of telecommunications hardware. Include a description of each type and list the applications. (Poster should be large enough to present picture and information in a pleasing manner. Be creative.)

Examples: Telephone hardware, computer systems, peripheral devices, video equipment.

Source: **Introduction to Telecommunications—Student Manual.**

HOW TO ACCESS A DATABASE SERVICE/BULLETIN BOARD

A. Research the software user's manual on how to boot the system according to the documentation for your software.

B. Research the software user's manaual on how to load the communication software package.

C. Investigate the software user's manual or the modem user's manual for the following:

1. Setting the STATUS—the first step in communicating with a host computer is connecting a modem to the computer. Refer to your modem's operating instructions for details.
2. Is there a HELP SCREEN available? If so, learn how to access the HELP SCREEN.
3. Telecommunication software has Function Keys. Investigate the software user's manual on what these keys are and what their function will be while using the keys.
4. From the user's manual, learn how to do the following:
   - (a) Linkage
   - (b) Log-on/off
   - (c) Download
   - (d) Print

D. When you subscribe to a database service and/or bulletin board service, the service will send you a user's guide and/or tell you online how to use their service. Make a copy of these directions! Most of the services will include the following information:

1. Access phone number
2. Tymnet Terminal Identifier Code OR Telenet Terminal Identifier Number
3. Password
4. Logging on/logging off
5. Navigating through the menus
6. Online legal disclaimers
7. Online Assistance

E. When you subscribe to a database/bulletin board service, the service will provide you with information about the types of data that are included in the database/bulletin board. The approach that you take in preparation for accessing a service will differ with each one. However, there are some common attributes that you need to be familiar with before going on line. Study the instructions for the database/bulletin board service carefully.

PRACTICE EXERCISES USING A NEWS/RETRIEVAL

A. Obtain a list of the top news headlines around the world compiled from the Associated Press newswire.

B. Secure the latest scores, stats, standings, and schedules for the sports that is currently in season.

C. Find the weather for your area for the next week.

D. Go shopping and find out what special bargains are available.

E. Plan a trip to New York from the nearest airport.

F. Complete a two-page report on computers.

G. You want to go to the movies this weekend and you are unable to decide which movie you want to see. Find out what the top movies are for the week, obtain a brief description, rating and length of each.

H. Secure a list of the current best-selling books (fiction and non-fiction).

SUMMARY OF THE HISTORICAL DEVELOPMENTS OF TELECOMMUNICATIONS

The electric telegraph and a code system were developed by Samuel Morse and the first government installation took place in 1844. By 1860, telegraph lines were strung on poles beside the railroad and linked most of the major cities in the country.

The Civil War years saw a dramatic rise in the use of telegraphic communications by businesses and the military. The network of railroads and telegraph lines in the northern states was an important advantage to the Union Army during the Civil War.

The telephone was invented in 1876 by Alexander Graham Bell, a teacher of speech to the deaf. In 1877 the telephone industry was formally organized with the creation of the Bell Telephone Company. The first organization was a trusteeship. This organization made a decision that was to have far-reaching effects—to rent telephones rather than sell them.

In 1877 Western Union organized the American Speaking Telephone company and began offering telephone services to the public. After a period of intense competition, Bell initiated a lawsuit against Western Union charging patent infringement. Western Union reached an out-of-court settlement with Bell providing that Western Union withdraw from the telephone business and sell its telephone network to Bell. Bell, in turn, agreed to stay out of the telegraph business.

In 1855 the American Telephone and Telegraph Company was formed to build and operate long lines for nationwide telephone services. In 1900 AT&T became the headquarters company of the Bell System. Before the expiration of the Bell patents, many new telephone companies were formed. Some of the new companies were organized under a Bell franchise agreement; others began operating "independent" of any Bell affiliation and in direct competition with the franchised companies. After the expiration of the Bell patents, competition between Bell and the independents intensified. Bell employed several tactics to combat the independents, including rate cutting, buying out competitors, and refusing to interconnect with Bell's lines.

In 1909 Bell bought controlling interest in Western Union and Bell's president became president of both companies. In 1911 AT&T consolidated the franchise companies operating under Bell patents into state or territorial units.

In 1912 the independent telephone companies protested to the U.S. Department of Justice that AT&T was operating in violation of the antitrust laws. Faced with a probable lawsuit, AT&T disposed of its stock in Western Union, refrained from acquiring additional independent telephone companies, and agreed to interconnect its facilities with those of the independents.

Basically, the telephone system remained the same until 1968 with the exception of the state and federal goverment establishing regulatory commissions.

In 1968 the Carterfone decision opened the way to competition in the supply of customer-owned telephone equipment connected to the telephone company networks. As a result, the interconnect industry was born. A few years later, the MCI decision opened the way to competition in long distance service. Because the new common carriers specialized in a specific type of telephone services, they became known as specialized common carriers. These specialized services included computer-oriented communications.

In 1981 a major restructing of the telecommunications industry began to take place. The Computer Inquiry II decision (1981) and the Modified Final Judgement (1982) caused a major change in the industry. The results was a breakup of the AT&T system and caused it to divest itself of all its operating companies. This opened the way for competition in interconnect hardware. Added services and hardware began to appear and this developed into our present day system.

Sources: **Telecommunications: Concepts, Development, and Management,** Glencoe Publishing Company, and **Introduction to Telecommunications The Business Perspective,** South-Western Publishing Company.

DEVELOP A MESSAGE FOR VOICE MAIL

Directions: Read the following case study.

> Call Ms. Sue Jones and schedule an appointment for Thursday with her to discuss the Brown case. The meeting needs to be at 10 a.m. in your office. When you reach the company where Ms. Jones is employed, the operator puts your call through to her office. She is not available and her voice message asks you to leave a message. On a separate sheet of paper, write the message you would leave on Ms. Jones' voice mail system.

Source: **Introduction to Telecommunications—Student Manual**, Mid-American Vocational Curriculum Consortium, Inc.

ATTRIBUTES OF TELECOMMUNICATIONS

(1) Timeliness—the speed with which a given amount of information is transmitted and received.

(2) Reliability—the degree to which the system will operate dependably and maintain the integrity of the information it transmits and receives.

(3) Quality—the strength, intelligibility, and clarity of the transmission signal including the ability to produce and receive a strong, clear signal.

(4) Ease of use—the relative level of knowledge a user must have to operate the system.

(5) Cost—the system's expense compared to its performance characteristics.

(6) Security—The system's capacity to transmit and receive information without compromise, interception, or interference from outside sources.

Source:
Introduction to Telecommunications:
The Business Perspective
South-Western Publishing Co.

TM2

WHY TELECOMMUNICATIONS IN EDUCATION?

- √ creates motivational activity
- √ provides audience for writing
- √ provides experience for reading
- √ provides practice for improvement of reading rate
- √ provides practice in recognizing main ideas and sequencing
- √ develops comprehension skills
- √ develops computer operational skills
- √ develops skills for the future
- √ develops vocabulary
- √ broadens information base
- √ refines reference skills
- √ develops decision making skills
- √ develops critical thinking skills
- √ introduces application of computer skills in society

Source:
Telecommunications—First Primer
Media and Technology Services
NC Department of Public Education

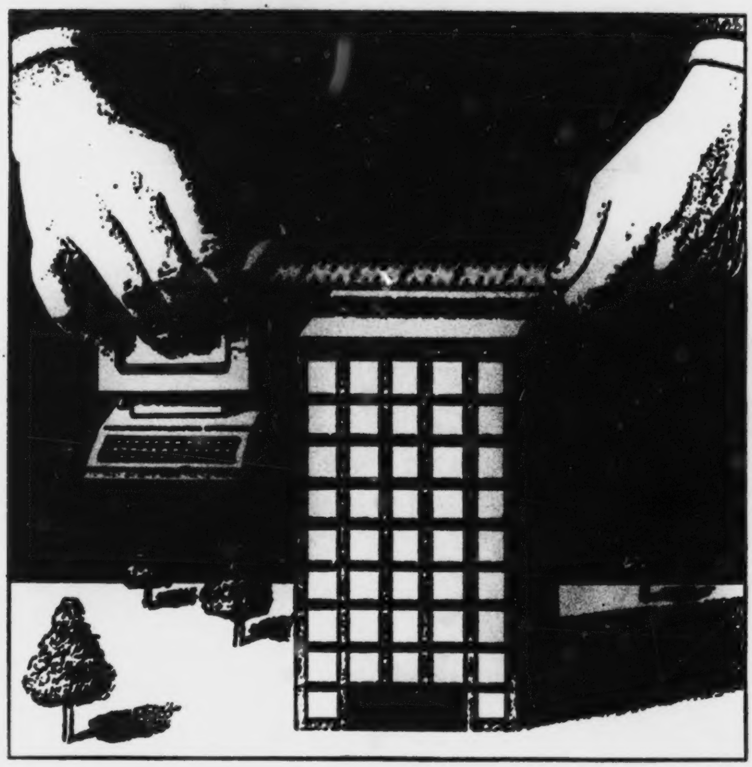
EXAMPLES OF BUSINESSES THAT DEPEND UPON TELECOMMUNICATIONS

Application	**Activity**
Airlines	Flight schedules
	Reservations/cancellations
Artificial Intelligence	Computer games
	Linguistics (language translation)
	Robotics
	Simulating human dialogue
Banking	Account transactions
	Account inquiry
	Electronic funds transfer
Education	Computer-Assisted Instruction (CAI)
	Student records
	Student registration
	Testing-scoring/distribution statistics
Health	Patient records/case histories
	Patient-care monitoring
	Diagnostic procedures
	Hospital information systems
	Computer-Assisted Research
	Computer-Assisted Pharmacy Systems
	Psychoanalysis/therapy
Insurance investments	Policyholder information/records
	Market quotations/transactions
	Market research
	Financial analysis/planning
Legal	Drivers' licenses and records
	National Crime Information Center
	Attorney business records
	Scheduling attorney time/cases/courtroom
	Legal research
Manufacturing	Computer-Assisted Design (CAD)
	Computer-Assisted Manufacture
Politics	Computer voting systems
	Election return reports
	Fund raising
Retail Distribution	Point-of-sale systems
	Credit card authorization
	Inventory control
	Order processing
	Account records
	Electronic checkout
Science	Scientific research
	Scientific problem solving

Source: **Telecommunications: Concepts, Development, and Management**
Glencoe Publishing Co.

WHY THE BUSINESS WORLD USES TELECOMMUNICATIONS

Measuring Up The Corporate World



Source: **Dowline, The Magazine of Dow Jones News/Retrieval**
First Quarter, 1989

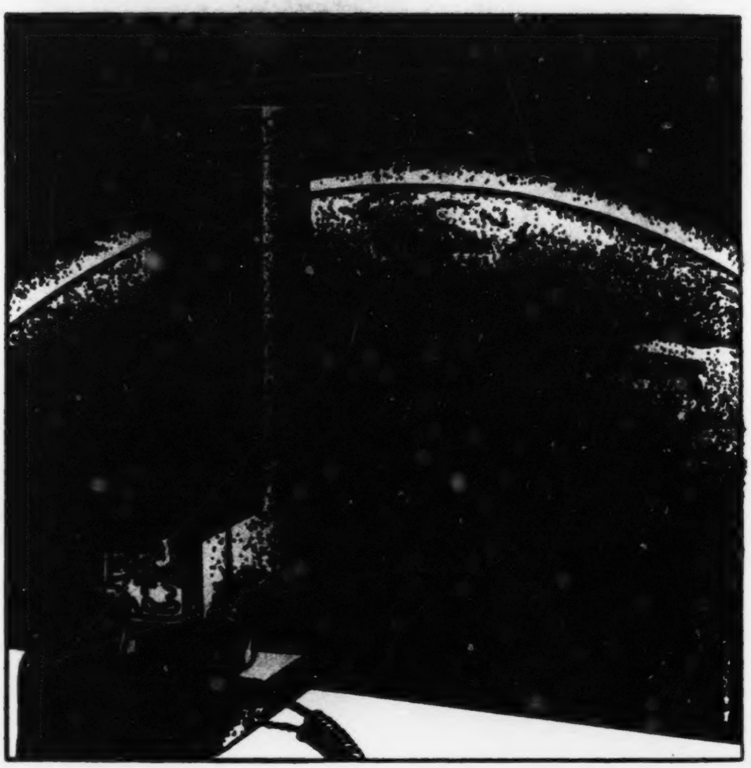
WHY THE BUSINESS WORLD USES TELECOMMUNICATIONS

Marketing
Overseas

Source:
Dowline, The Magazine of Dow Jones News/Retrieval
First Quarter, 1989

WHY THE BUSINESS WORLD USES TELECOMMUNICATIONS

Exploring International Markets & Economics



Source:
Dowline, The Magazine of Dow Jones News/Retrieval
First Quarter, 1989

WHY THE BUSINESS WORLD USES TELECOMMUNICATIONS

Maintaining Portfolios

Source:
Dowline, The Magazine of Dow Jones News/Retrieval
First Quarter, 1989

TM8

WHY THE BUSINESS WORLD USES TELECOMMUNICATIONS

Finding Investments

Source:
Dowline, The Magazine of Dow Jones News/Retrieval
First Quarter, 1989

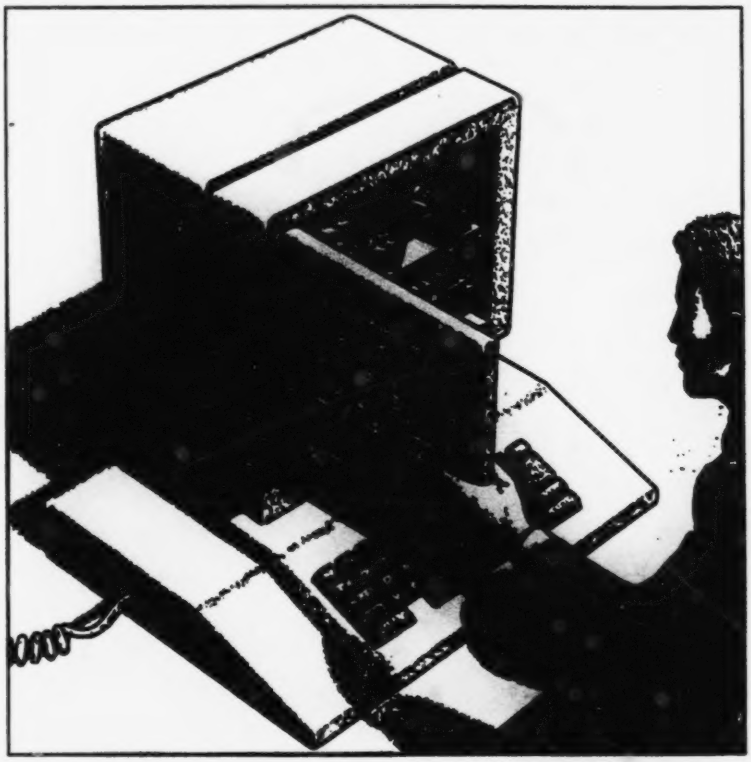
WHY THE BUSINESS WORLD USES TELECOMMUNICATIONS

Investigating Management

Source:
Dowline, The Magazine of Dow Jones News/Retrieval
First Quarter, 1989

WHY THE BUSINESS WORLD USES TELECOMMUNICATIONS

Assessing Financial Strength



Source:
Dowline, The Magazine of Dow Jones News/Retrieval
First Quarter, 1989

WHY THE BUSINESS WORLD USES TELECOMMUNICATIONS

Expanding on Mergers & Acquisitions

Source:
Dowline, The Magazine of Dow Jones News/Retrieval
First Quarter, 1989

Telecommunications

Voice-Telephony

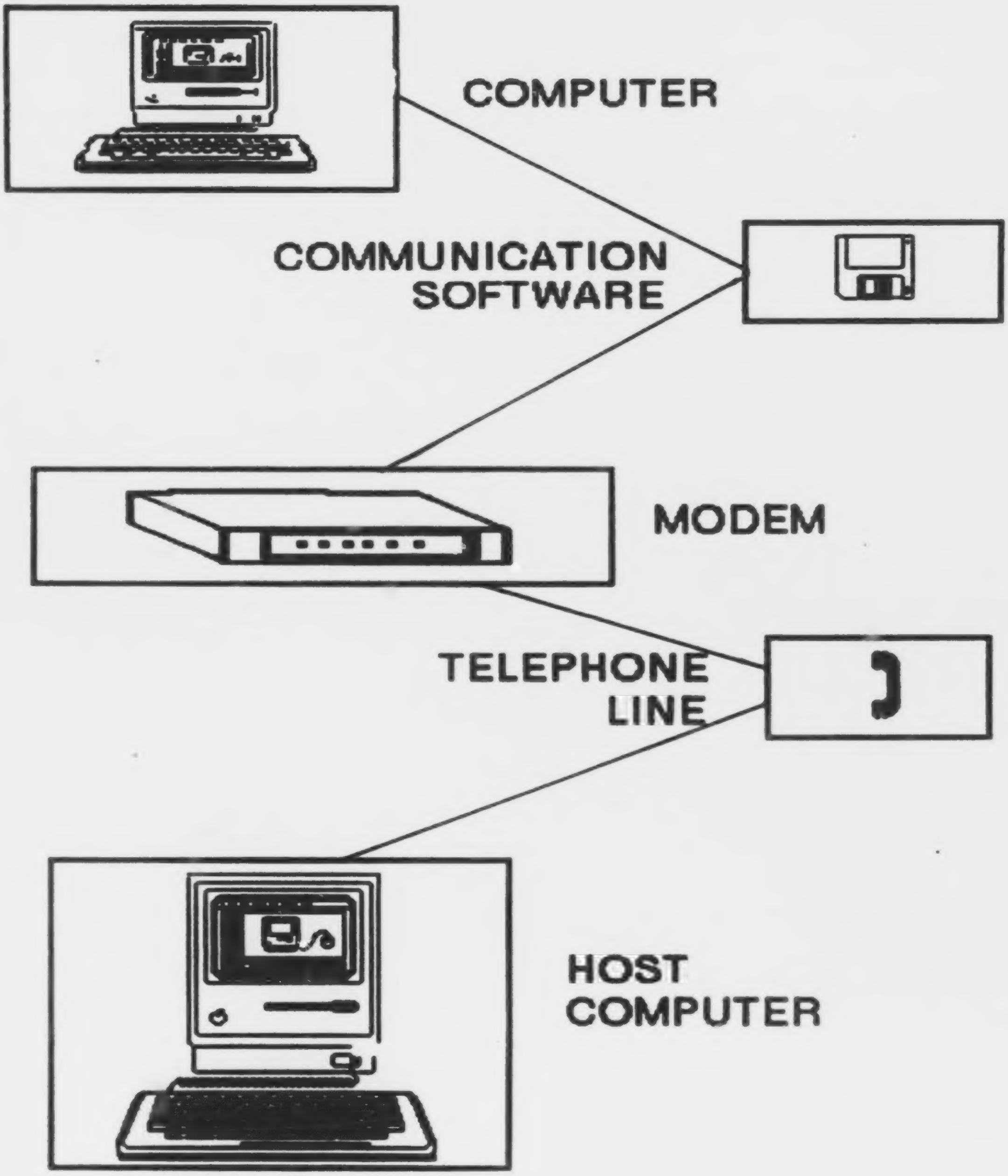
Data--Letters, facts

- Electronic Mail
- Bulletin Board
- Teleconferencing
- On-line Retrieval

Message--telegrams, teletypewriter, voice

Image--Facsimile or video form

EQUIPMENT NEEDS FOR TELECOMMUNICATIONS



COMPUTER

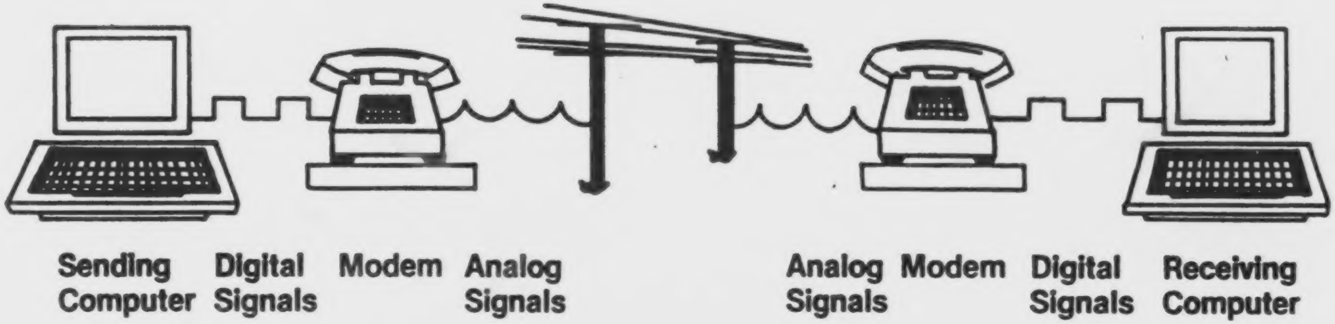
COMMUNICATION SOFTWARE

MODEM

TELEPHONE LINE

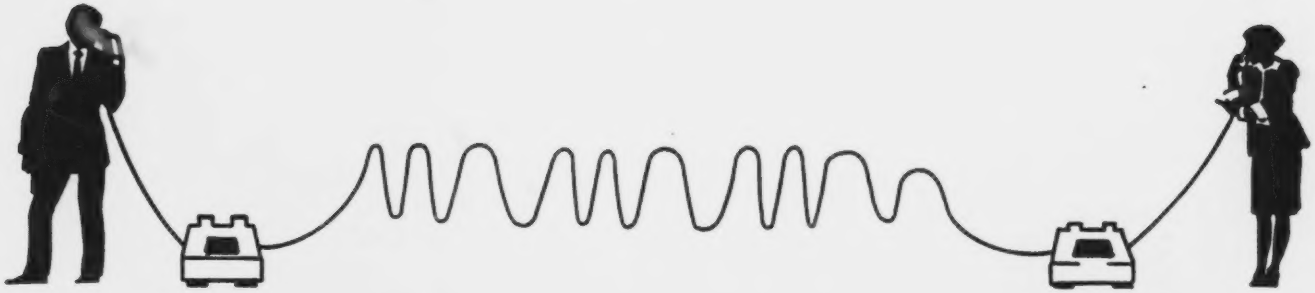
HOST COMPUTER

How a Modem Works

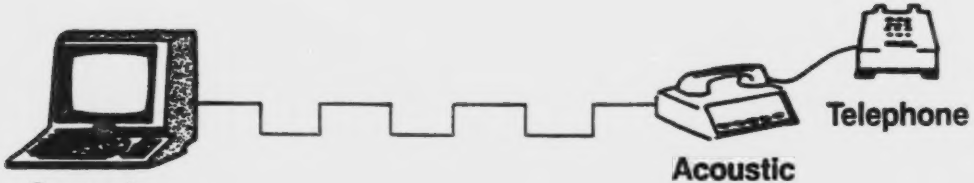

Sending Computer
Digital Signals
Modem
Analog Signals
Analog Signals
Modem
Digital Signals
Receiving Computer

Source: Introduction to Telecommunications—Student Manual, Mid-American Vocational Curriculum Consortium, Inc.

Analog and Digital Transmission


Telephone
Telephone

Analog Data Transmission

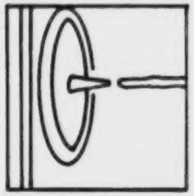

Computer
Acoustic Modem
Telephone

Digital Data Transmission

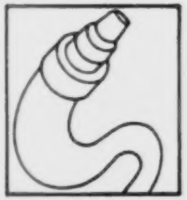
Source:
Introduction to Telecommunications
The American Vocational Curriculum Consortium, Inc.
Telecommunications
J-32

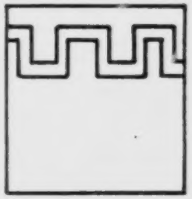
Transportation Systems

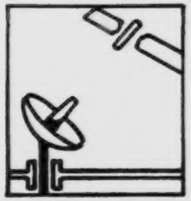
Twisted Pair


Microwave

Fiber Optics


Coaxial Cable


Digital Carrier

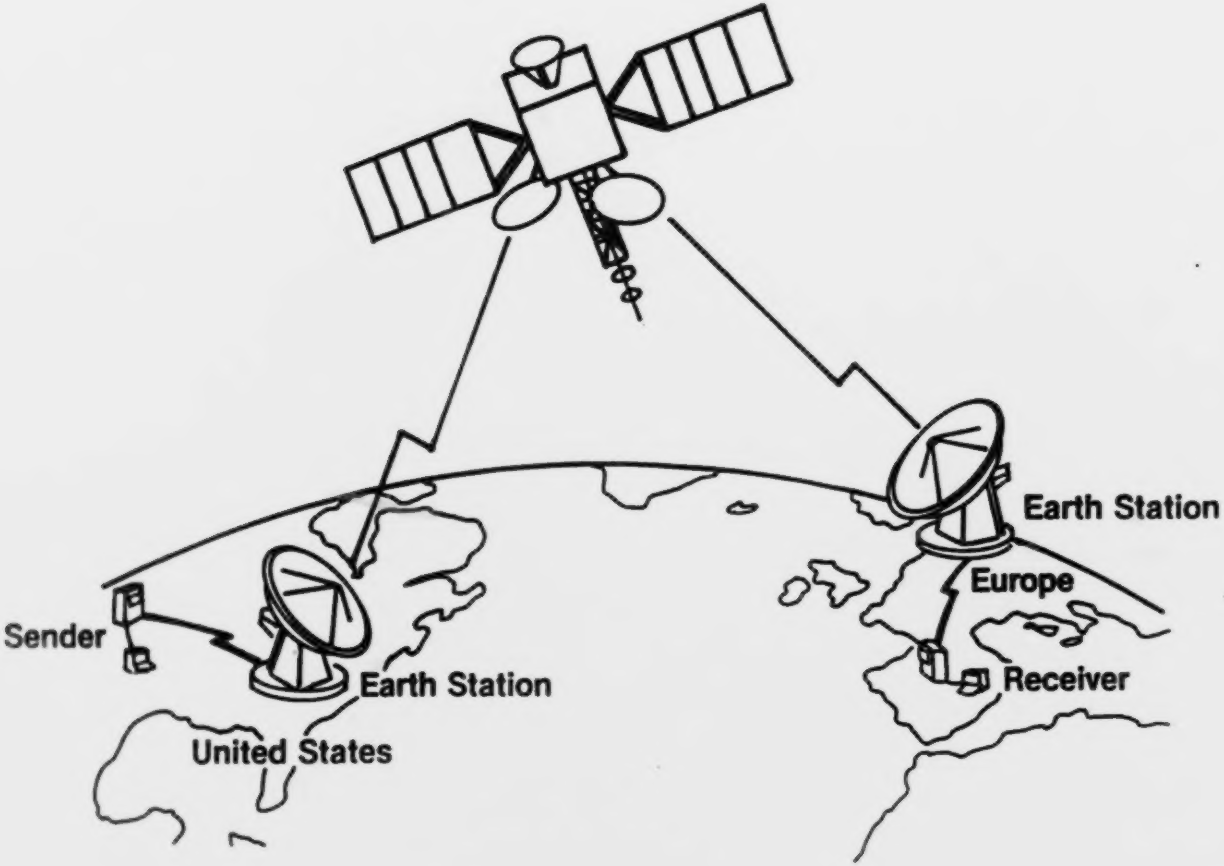

Satellite Link

Source:
Introduction to Telecommunications
The American Vocational Curriculum Consortium, Inc.

Telecommunications
J-33

TM16

Satellite Communication System

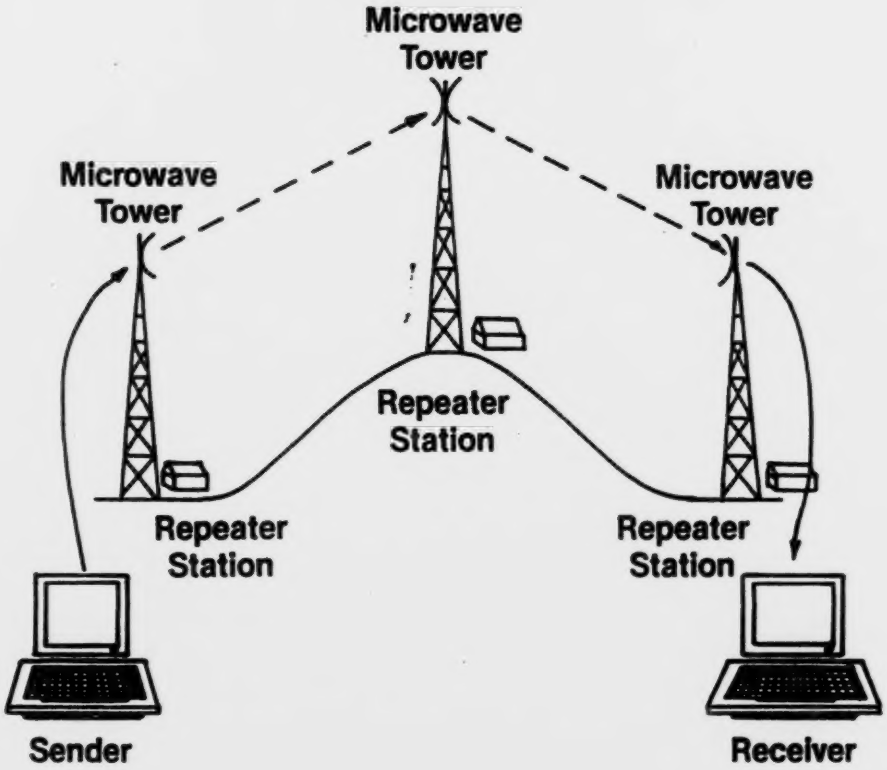

Sender
Earth Station
United States
Earth Station
Europe
Receiver

Source:
Introduction to Telecommunications
The American Vocational Curriculum Consortium, Inc.

Telecommunications
J-34

TM17

Microwave Network

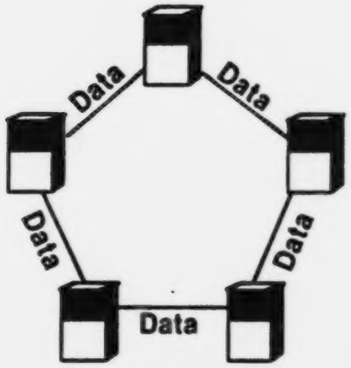

Microwave Tower
Microwave Tower
Microwave Tower
Repeater Station
Repeater Station
Repeater Station
Sender
Receiver

Source:
Introduction to Telecommunications
The American Vocational Curriculum Consortium, Inc.

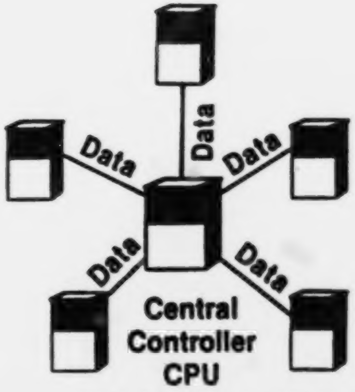
Telecommunications
J-35

TM18

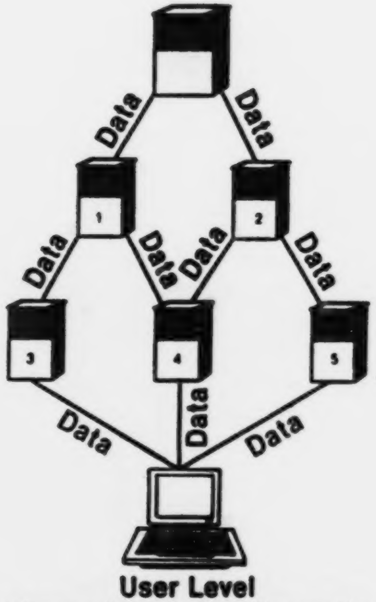
Networking Systems


Data
Data
Data
Data
Data

Ring Configuration


Data
Data
Data
Data
Data
Central
Controller
CPU

Star Configuration


Data
Data
1
2
Data
Data
Data
Data
3
4
5
Data
Data
Data
User Level

Hierarchical Configuration

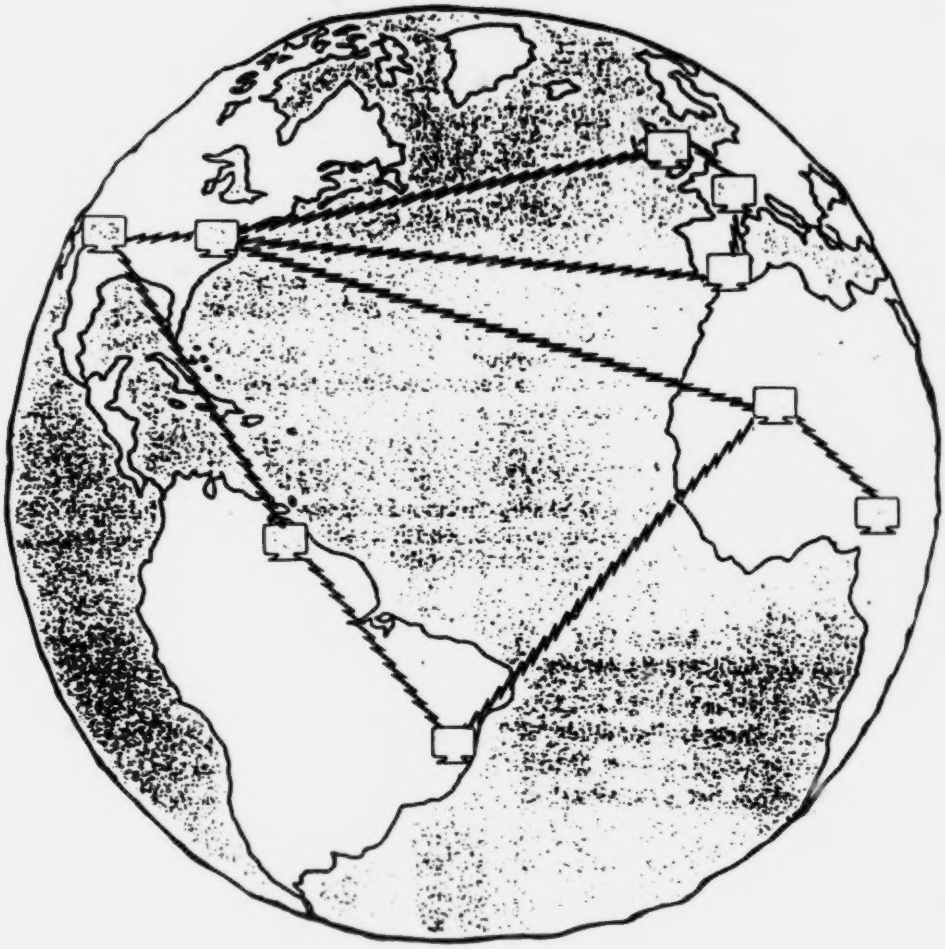
Source:
Introduction to Telecommunications
The American Vocational Curriculum Consortium, Inc.

Telecommunications

J-36

TM19

UNLIMITED POTENTIAL FOR TELECOMMUNICATIONS



Source: **Telecommunications Technology and Devices,** MPC Educational Publishers.

Tidbits and Treasures on Telecommunications
Dateline 1987

Currently, 1 modem is sold for every 3 computers. Prediction: by 1990 1 will be sold for every 2 computers.

The average annual growth of the modem market is 46%.

The demand for telecommunications specialists will continue to TRIPLE every 2 years.

In France, every phone user is issured (free) a telecommunications terminal (in lieu of a paper phone book). The resulting interaction among some groups of people has become quite a social phenomenon.

Thanks to Time Magazine and IBM, IBM PC (or clone) users can download a weekly current event package corresponding with that week's news for use in the classroom. For information: 1-800-523-8727

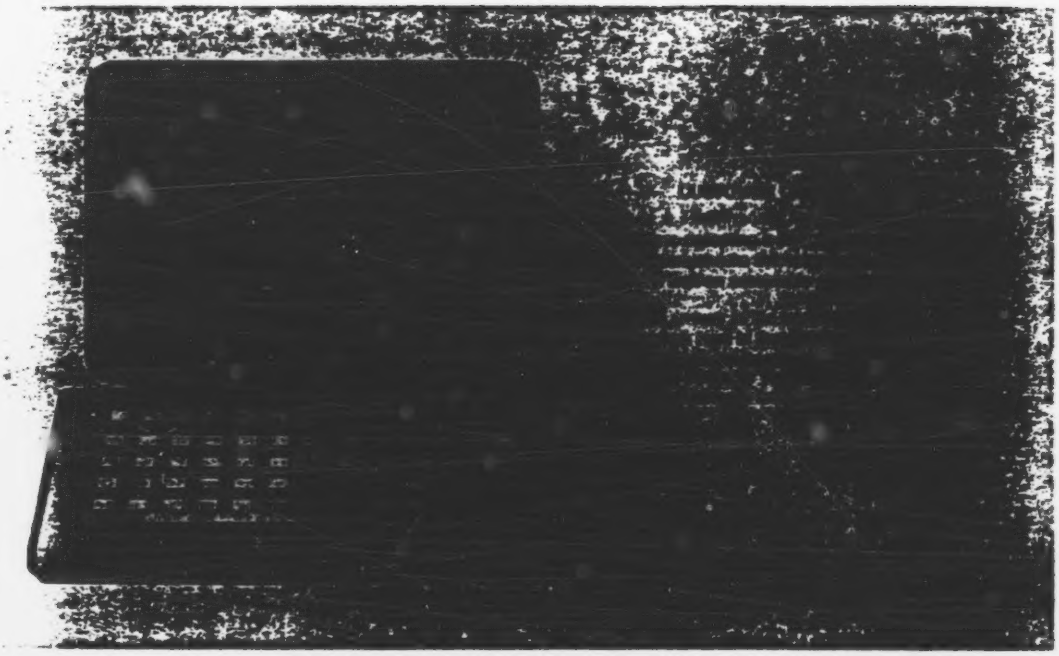
Currently, there are more than 2200 data bases available on more than 360 information services.

In two years there will be a potential 35 million online terminals.

In 1986, approximately 10% of American homes have some kind of interactive capability: by 1990 the estimate is 25%.

Bell is marketing a system called WATSON - a computer - run phone management system that handles phone calls as directed, including storing messages on a hard disk, referring callers, etc. It's price is not prohibitive (around $250, I think) and the equipment serves as a modem for other purposes as well. For a voice demo, call 1-800-6WATSON (the voice you hear is a COMPUTER speaking!)

Source: **Telecommunications—First Primer**
Media and Technology Services
N.C. Department of Public Instruction.



ON-LINE INQUIRY SYSTEM FOR CUSTOMER CREDIT CHECK.

Source:
Introduction to **Information Processing**, 4th Ed.
Gregg Division
McGraw-Hill Book Company

THE ETHICS OF MESSAGE SYSTEM USE

BULLETIN BOARDS AND MESSAGE SYSTEMS ARE NOT UNLIKE ANY OTHER MEDIA. THERE ARE UNDESIRABLE BOARDS AS WELL AS DESIRABLE ONES. PARENTS WILL FIND THE NEED TO SCREEN THEIR CHILDREN'S ON-LINE VIEWING HABITS, JUST AS THEY OFTEN CHOOSE TO SCREEN TELEVISION PROGRAMMING. CLASSROOM TEACHERS MAY ALSO FIND THEMSELVES IN A POLICING ROLE AS THE GROWTH OF COMMUNICATION NETWORKS CONTINUES.

THE FOLLOWING "GUIDELINES" ARE ACCEPTED CONVENTIONS OR RULES OF ON-LINE BEHAVIOR FOR INDIVIDUALS WHO FREQUENTLY COMMUNICATE VIA THE PHONE LINES. THESE GUIDELINES SHOULD BE REGARDED AND COMMUNICATED TO ALL POTENTIAL OR ACTUAL MESSAGE SYSTEM USERS.

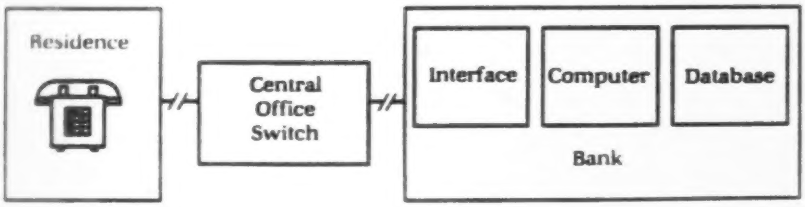
RULES FOR ETHICAL ON-LINE BEHAVIOR

1. AVOID PROFANITY OR VULGARITY.
2. AVOID THE PIRATING OF COMMERCIAL SOFTWARE.
3. DON'T ATTEMPT TO CRASH OR OTHERWISE HARMFULLY PENETRATE ANY MESSAGE SYSTEM.
4. DON'T PUBLICLY POST MALICIOUS RUMOR OR MISLEADING INFORMATION.
5. DON'T USE ANOTHER PERSON'S PASSWORD.
6. AVOID BREAKING EXISTING FEDERAL, STATE, AND LOCAL LAWS WITH YOUR ACTIONS ON-LINE.

THESE RULES OF CONDUCT ARE COMMONLY FOLLOWED IN MESSAGE SYSTEMS AROUND THE COUNTRY. FAILURE TO COMPLY CAN OFTEN LEAD TO PERMANENT LOSS OF ACCESS PRIVILEGES AND SYSTEM MEMBERSHIP. VIOLATION OF THE LAW CAN LEAD TO CIVIL OR CRIMINAL ACTION BEING TAKEN.

Source:
Telecommunication—First Primer
Media and Technology Services
NC Department of Public Education

CALLER USING TOUCH TONE TELEPHONE TO CONTACT BANK


Residence
Central
Office
Switch
Interface
Computer
Database
Bank

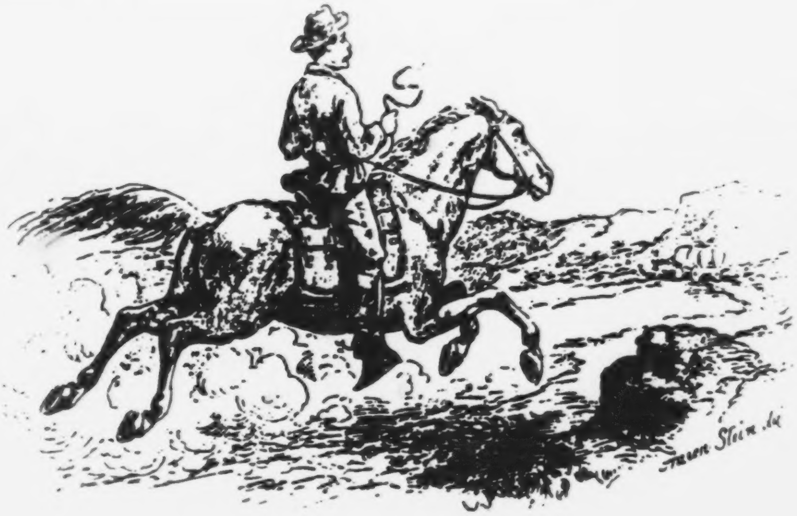
Source:
Introduction to Telecommunications:
The Business Perspective
South-Western Publishing Co.

Telecommunications Chronology

1876	Alexander Graham Bell invents the telephone
1879	First private telephone manual switchboard (forerunner of PBX)
1889	First public coin telephone is installed
1927	First international telephone call (New York to London)
1934	Congress establishes the Federal Communications Commission
1948	First microwave radio relay system placed in service between New York and Boston
1951	Direct long-distance customer dialing begins
1960	Electronic switching systems developed
1961	Wide Area Telephone Service (WATS) introduced
1962	First international telephone call and television program placed by Telstar satellite
1963	Touch-tone service, introducing telephones with push buttons instead of rotary dials
1965	Introduction of commercial international telephone service by satellite
1965	AT&T 800 service begins
1970	PicturePhone service allows users to see as well as talk to each other
1974	First private line digital communications service
1977	First full-service lightwave communications system (Chicago)
1978	Introduction of the digital private branch exchange (DPBX)
1978	Mobile cellular phone service started in Chicago
1979	Local area networks introduced
1984	Court-ordered breakup of the Bell System

Source:
Wall Street Journal—February 24, 1986
DTP reprint by: John J. Olivo, Jr., Ph.D.

PONY EXPRESS RIDERS CARRIED MESSAGES BETWEEN TELEGRAPH STATIONS



Source:
Introduction to Telecommunications:
The Business Perspective
South-Western Publishing Co.

SEARCH STRATEGY WORKSHEET

Name:______________________________ Date:______________

Class:______________ Online time:__________(on)__________(off)

Title of Search:____

____

Purpose: (Circle one) Assignment, Research Paper, Homework, Other

Description:____

____

____

____

Keywords (descriptors, identifiers, authors, etc.)

________________________	________________________
________________________	________________________
________________________	________________________
________________________	________________________
________________________	________________________

Database(s):________________ ________________________

Strategy: OR, AND, NOT

____________OR______________ __________AND_________

____________NOT_____________

Search Evaluation:

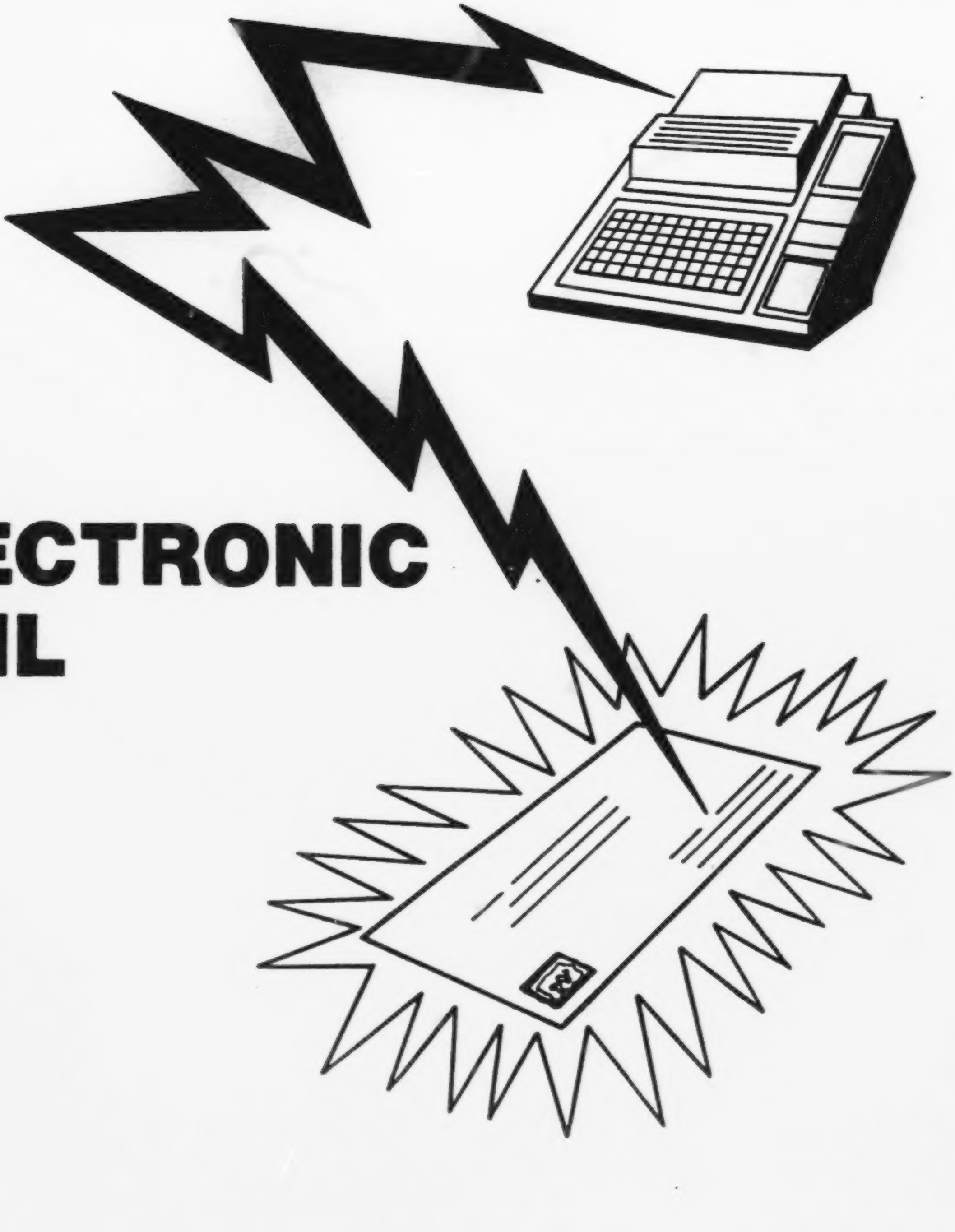
(Did, Did Not) get the information wanted?

Explain____

Comments:____ ______________

______________ ______________

Source:
Telecommunication—First Primer
Media and Technology Services
NC Department of Public Education



ELECTRONIC MAIL

Source:
Electronic Mail
MPC Educational Publishers

Linguistic questionnaire developed by students and completed by schools in North Carolina and Montana.

What do you call . . .

1. a carbonated soft drink?
2. it when you change clothes for participation in a sport?
3. the place in your car where you put your maps?
4. a sandwich that has luncheon meat, lettuce, cheese, etc. on a long piece of bread?
5. a drink made with ice cream and milk?
6. a place in nature that has many trees?
7. something made of cloth that is worn on the feet?
8. a form of water that is like a river but smaller?
9. an open place in nature with grass, flowers, etc. growing on it?
10. something that you put on your bed to keep you warm?
11. something you cut paper with?
12. something that has drawers that you keep clothes in?
13. something that you put water in when you wash your floor?
14. a non-paved road?
15. something you put on highways to make them smoother?
16. something you drink water out of at school?
17. something you get water from at a sink?
18. something you eat off?
19. something that you watch on a screen in a theater?

20. something that has a hard floor that is in front or in back of your house?

21. something that you sit on and is long in your living room?

22. something you wash your hands in?

23. the food you take to a potluck?

24. the room in your house where you would find the comfortable chairs and maybe your TV?

25. the thing a lady carries make-up, money, etc. in?

26. the bread you eat a hamburger on?

27. the low places on the side of a highway?

28. the place in your school where you change clothes for P.E.?

29. the place where cattle are raised?

30. the evening meal?

31. a small mountain?

Source:
Telecommunication—First Primer
Media and Technology Services
NC Department of Public Education
July, 1987

WHAT IS A FACSIMILE MACHINE?

A facsimile is a form of data transmission that works like a photocopying machine except that the original and copy are separated by distance. The facsimile machine optically scans the document to be transmitted and converts this scanned information into electrical signals, which are transmitted to the receiving facsimile machine. The impulses are converted back into optical information and becomes the hard-copy representation of the original document. A photocopying machine optically scans the document to be copied and produces an exact duplicate of the original. Both a photocopying machine and a facsimile machine shines a very bright light on the document so that its photoelectric eye can scan the line and pick up the difference between the light areas and dark areas. On a facsimile machine this pattern of light and dark is transformed into digital code that is then sent to a receiving facsimile, which reverses the process. A photocopying machine simply produces a copy. The major difference between the output of a photocopy machine and a facsimile is that the facsimile copy is likely to be of lower resolution (less detailed). Higher resolution facsimile reproductions requires greater bandwidth or slower transmission times, both of which result in higher costs per copied page.

Source:
**Introduction to Telecommunications:
The Business Perspective**
South-Western Publishing Co.

EVALUATION MEASURES
FOR
TELECOMMUNICATIONS

COMPETENCY GOAL 10: The learner will identify telecommunications, services; describe the hardware/software, and demonstrate a variety of tasks using a simulation.

OBJECTIVE 10.1: Identify the advantages of using telecommunications services.

Test Item 010-10.1-01

INSTRUCTIONS TO STUDENTS: Read each of the following statements about the advantages of telecommunications. Select the best answer and write the corresponding letter on the line provided.

_____ 1. From the following list, select **one** item that is **NOT** an advantage of telecommunications:
(A) Timeliness
(B) Quality
(C) Unreliable
(D) Ease of use
(E) Cost

_____ 2. The major reason cited for the modern day advances in telecommunication were motivated by
(A) Speed of data transmission
(B) Security of data
(C) Reliable data delivery
(D) Cost of sending data
(E) Convenience of sending data

_____ 3. From the following list, select **one** industry that depends upon telecommunications for its very existence
(A) Education
(B) Health
(C) Airlines
(D) Construction
(E) Agriculture

_____ 4. Working at home and communicating with the office via telecommunications has both positive and negative implications for the office worker. Choose one item from the following list that is **NOT** an advantage for the office worker to work at home:
(A) Reduced travel time
(B) Less distractions
(C) Flexible hours
(D) Closer to family
(E) Personal contact with co-workers

_____ 5. Teleconferencing is an advantage to business people because it
(A) Improves the conferences held by business
(B) Is disliked by workers
(C) Improves productivity because it saves travel time and expense
(D) Solves time zone problem
(E) Is the act of a worker commuting long distances

Test Item 010-10.1-02

INSTRUCTION TO STUDENTS: Answer the following questions in the space provided.

1. Jeanne Ward, a twelfth grader at Lee County Senior High School in Sanford, North Carolina, uses the **Academic American Encyclopedia** to do her research for a term paper. The encyclopedia is made available to the students by computer and telephone from a news and retrieval service. Jeanne does her school work using telecommunications. State the reason why this is an advantage for Jeanne.

____

____

____

2. Name the primary advantages of electronic mail? _______________

____

3. Name one advantage of telecommunications in the banking industry.

____

4. Describe one advantage of voice processing.

____

____

5. State an advantage of teleshopping for an elderly person.

____

____

OBJECTIVE 10.2: Recognize telecommunication terms.

Test Item 010-10.2-01

Column A

_____ 1. Baud
_____ 2. Bibliographic database
_____ 3. Bulletin boards
_____ 4. Carrier
_____ 5. Data base
_____ 6. Download
_____ 7. Electronic mail
_____ 8. Full duplex
_____ 9. Half duplex
_____ 10. Information utility
_____ 11. Log-off
_____ 12. Log-on
_____ 13. Facsimile
_____ 14. Modem
_____ 15. Off-line
_____ 16. On-line
_____ 17. Parity
_____ 18. Password
_____ 19. Protocol
_____ 20. Search strategy
_____ 21. Telecommunications
_____ 22. Upload

Column B

A. Communications at a distance, the communications link between user's terminal and host computer.
B. The process of using the computer to send messages to another person's computer "mail box" and to receive messages in one's "mailbox" electronically over telephone lines.
C. The steps to establish connection with the main system.
D. Data transmitted in one direction only, similar to a CB radio.
E. A computer service where users may post electronic bulletins for others.
F. A method for detecting errors in data transfer, defined in terms of odd or even.
G. The bits transmitted per second, recorded as 300, 1200 or higher.
H. Setting to permit data transmission in both directions, to the user and from the user, similar to a telephone.
I. A collection of information stored in a large, or host computer.
J. Not connected to another computer or network.
K. A vendor that provides some financial services, usually some journal references and other general information databases, as distinguished from bibliographic or text abstract services.
L. A database that has information about a document, its title, author, subject headings, source, and usually an abstract.
M. The tone the host computer sends, when the user has logged on to the host.
N. The steps to disconnect from the main system.
O. Sending data to the host computer.
P. Acronym for modulator demodulator, a device that allows a computer to talk with other computers over telephone lines—converts digital signals to sound and back.
Q. A unique set of characters that secure entry into an information service.
R. A plan of action for accessing the database and retrieving useful information.
S. An "agreement" of both computers on the procedure for data transmission.
T. The process of transferring a file of data from a host computer to the user's computer.
U. Connected by a modem and telephone lines to another computer or data service.
V. The process of transmitting text, pictures, diagrams, etc., via a telecommunications system to a remote location where a hard copy is reproduced.

OBJECTIVE 10.2: Recognize telecommunication terms.

Test Item 010-10.2-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements that define terms used in telecommunications. Select from the list the word/words that best describe(s) the meaning.

1. The process of transmitting information over a distance by electrical or electromagnetic means.
   (A) Electronic mail
   (B) Information utility
   (C) Password
   (D) Telecommunications
   (E) Search strategy

2. A unique set of characters that secure entry into an information service.
   (A) Parity
   (B) Protocol
   (C) Pulse
   (D) Password

3. The steps to disconnect from the main system.
   (A) On-line
   (B) Log-off
   (C) Connect
   (D) Disconnect

4. Being connected by a modem and telephone lines to another computer or data service.
   (A) Off-line
   (B) On-line
   (C) Connect
   (D) Disconnect

5. A collection of information stored in a large, or host computer.
   (A) Electronic mail
   (B) Bulletin boards
   (C) Data base
   (D) Upload

6. The process of transmitting text, pictures, diagrams, etc., via a telecommunications system to a remote location where a hard copy is reproduced.
   (A) Copy
   (B) Photocopy
   (C) Facsimile
   (D) Upload

7. Acronym for modulator/demodular, a device that allows a computer to talk with other computers over telephone lines—converts digital signals to sound and back.
   (A) Modular
   (B) Modem
   (C) Multiplex
   (D) Modern

8. A database that has information about a document, its title, author, subject headings, source, and usually an abstract.
   (A) Bibliographic database
   (B) Bulletin boards
   (C) Data base
   (D) Electronic mail

9. Not connected to another computer or network.
   (A) Upload
   (B) Download
   (C) On-line
   (D) Off-line

10. Setting to permit data transmission in both directions, to the user and from the user, similar to telephone.
   (A) Duplex
   (B) Full duplex
   (C) Half duplex
   (D) Quarter duplex

11. A vendor who provides some financial services, usually some journal references and other general information databases, as distinguished from bibliographic or text abstract services.
   (A) Bibliographic database
   (B) Bulletin boards
   (C) Information
   (D) Electronic mail

12. Communication at a distance, the communications link between user's terminal and host computer.
   (A) Telecommunications
   (B) Data base
   (C) Electronic mail
   (D) Search strategy

13. An "agreement" of both computers on the procedure for data transmission.
   (A) Parity
   (B) Password
   (C) Protocol
   (D) Pulse

14. The tone the host computer sends, when the user has logged on to the host.
   (A) Carrier
   (B) Baud
   (C) Parity
   (D) Protocol

15. Sending data to the host computer
   (A) Off-line
   (B) On-line
   (C) Download
   (D) Upload

16. The process of transferring a file or data from a host computer to the user's computer.
   (A) Off-line
   (B) On-line
   (C) Down load
   (D) Upload

17. A plan of action for accessing the database and retrieving useful information.
   (A) Telecommunication
   (B) Data base
   (C) Electronic mail
   (D) Search strategy

18. The steps to establish connection with the main system.
   (A) Log-off
   (B) Log-on
   (C) On-line
   (D) Off-line

19. A method for detecting errors in data transfer, defined in terms of odd or even.
   (A) Parity
   (B) Password
   (C) Protocol
   (D) Baud

20. The bits transmitted per second, recorded as 300, 1200 or higher.
   (A) Baud
   (B) Parity
   (C) Password
   (D) Protocol

21. Data transmitted in one direction only, similar to a CB radio.
   (A) Full duplex
   (B) Half duplex
   (C) Duplex
   (D) Quarter duplex

22. A computer service where users may post electronic bulletins for others.
   (A) Bibliographic database
   (B) Electronic mail
   (C) Information utility
   (D) Bulletin boards

OBJECTIVE 10.3: Identify various types of telecommunications.

Test Item 010-10.3-01

INSTRUCTIONS TO STUDENTS: List and describe the four principal types of telecommunication systems available today. In space 5, list the type that is the oldest form.

1.

2.

3.

4.

5.

Test Item 010-10.3-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements about types of telecommunications. Select the best answer and write the corresponding letter on the line provided.

1. Telecommunications conveys information in which of the following forms?
   - (A) Voice, message, video, and telegraph
   - (B) Facsimile, voice, teletypewriter, and data
   - (C) Image, data, message, and voice
   - (D) Data, sound, telex, and image
2. Data communications does NOT include which of the following?
   - (A) Electronic mail
   - (B) Bulletin boards
   - (C) Online retrieval services
   - (D) Voice
3. Electronic voice communications is known as
   - (A) Telecommunications
   - (B) Telephony
   - (C) Speech
   - (D) Tranmission
4. Which one of the following would **not** be transmitted by image or facsimile systems?
   - (A) Diagrams
   - (B) Maps
   - (C) Graphs
   - (D) Telegrams

5. Which one of the following services would be performed by message communication?
   (A) Image
   (B) Voice
   (C) Data
   (D) Teleconferencing

OBJECTIVE 10.4: Identify and describe the hardware and software necessary for telecommunications.

Test Item 010-10.4-01

INSTRUCTIONS TO STUDENTS: Describe the following terms as they relate to hardware/software needed for telecommunications.

1. Microcomputer ____

____

2. Communications Software ______________________________________

____

3. Modem ____

____

4. Telephone Line ____

____

5. Host Computer ____

____

Test Item 010-10.4-02

INSTRUCTIONS TO STUDENTS: From the list of definitions in Column B, select the definition that best describes the word/words in Column A. Write the letter of the definition in the space provided at the left.

Column A

_____ 1. Communication software

_____ 2. Host computer

_____ 3. Microcomputer

_____ 4. Modem

_____ 5. Telephone line

Column B

A. A mini- or mainframe computer that stores information and/or facilitates communication.

B. The conduit for telecommunicated messages and information.

C. A collection of information stored in a large, or host computer.

D. Connected to a modem and operates communications software, allowing one to communicate.

E. An internal or external device that connects computer and phone line.

F. The brain of the telecommunications system that tells the modem and computer what to do.

OBJECTIVE 10.5: Demonstrate a variety of tasks using a telecommunications simulation.

Test Item 010-10.5-01

INSTRUCTIONS TO STUDENTS: Exhibit the ability to perform a database search by completing the following activities using a telecommunication simulation:

1. **Using a telecommunications database simulation, search the NEWS database for the text of the top news story of the day, and print a copy of the text.**
2. **Using an electronic mail simulation, read mail and print a hardcopy of any incoming mail.**
3. **Using an electronic mail simulation, view all inbasket messages, and print a hardcopy of all messages.**
4. **Using a telecommunication database simulation, search the BOOKS database for a description of a book.**
5. **Using a telecommunication database simulation, search the SPORTS database for the front page sports article, and print a copy of the article.**

Test Item 010-10.5-02

1. **Using a telecommunication database simulation, search the FOREIGN NEWS database for the text of the top news story of the day, and print a copy of the text.**
2. **Using a telecommunication database simulation, search the MOVIES for a description of a movie between 1928-1986, and print a copy of the description.**
3. **Using an electronic mail simulation, send the following message to another school in your area (items that the student must supply or special instructions are in parenthesis) and print a hardcopy of the letter:**

   TO: (area high school)
   SUBJECT: Penpals
   (Enter text. End with a period on a line by itself)

   The students in my Computer Applications II class are interested in communicating by telecommunications with the students in your Computer Applications II classes. Would you be interested in a penpal correspondence via telecommunications?

   Please respond to JCOTTEN.

   Sincerely,

   (students name)

4. **Using a telecommunication simulation, search the WEATHER database for the current weather in the southeastern United States, and print a hardcopy of the report.**
5. **Using a telecommunication simulation, search the ENCYCLOPEDIA database for a definition of MODEM, and print a hardcopy of the information.**

COMPETENCY GOAL 11: The learner will analyze the telecommunications field.

OBJECTIVE 11.1: Analyze the legal, ethical, and social issues which may arise from telecommunications technology.

Test Item 011-11.1-01

INSTRUCTIONS TO STUDENTS: Analyze the following in the space provided:

1. Explain the difference between job displacement and retrain as they relate to the changes in the job market as a result of telecommunications.

____

____

____

2. Explain the frustrations of a worker who must retrain because of telecommunications technology.

____

____

____

3. To obtain access to a database service, bulletin board, or electronic mail service; a person must have a password. Explain the difference between the legal and illegal use of a password and explain why a password should be protected.

____

____

____

4. Examine the concerns that many people have that the legal use of data banks threatens to violate individual privacy.

____

____

____

5. Examine the following statement and give your observations as to what it means. "Telecommunications has the potential to help create better understanding in the world through improved communications."

____

____

____

Test Item 011-11.1-02

INSTRUCTIONS TO STUDENTS: Analyze the following in the space provided:

1. Explain the difference between a computer program obtained from a telecommunications correspondent and a computer virus obtained from the same source.

2. Explain the difference between computer ethics and the illegal use of information stored in a database that can be obtained from a telecommunications database.

3. Compare the terms "cash society" to "cashless society" and the fears that people have about the invasion of privacy that exists with the electronic transfer of funds that is commonly used by banks today.

4. The concern by the public regarding the invasion of privacy has caused the federal goverment to pass legislation to help safeguard information stored in a data bank. Explain the difference between the Fair Credit Reporting Act and the Financial Privacy Act and explain the goals of each act.

5. Compare the difference between a computer white collar criminal and a "hacker."

OBJECTIVE 11.2: Summarize the historical development of telecommunications.

Test Item 011-11.2-01

INSTRUCTIONS TO STUDENTS: On a separate sheet of paper, complete the following:

1. Write a general summary about the earliest forms of communications.
2. Rank in order the following events that contributed to the present methods of telecommunications:
   (A) Court-ordered breakup of the Bell System
   (B) Alexander Graham Bell invents the telephone
   (C) AT&T 800 service begins
   (D) Touch-tone service, introducing telephones with push buttons instead of rotary dials.
   (E) Direct long-distance dialing begins
3. Rank in order the following communication methods in the order that they were used:
   (A) Carrier pigeons
   (B) Telephone
   (C) Telegraph
   (D) Smoke signals
   (E) Computer
4. Historically, what has been the role of AT&T in telephony?
5. Why was the invention of the telegraph so important?

Test Item 011-11.2-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements about the historical developments of telecommunications. Select the best answer and write the corresponding letter on the line provided.

_____ 1. The telegraph was invented by
(A) Marconi
(B) Morse
(C) Faraday
(D) Gray

_____ 2. Immediately prior to the development of telegraphy, the principal method of communication over a distance was by
(A) Postal service
(B) Smoke signals
(C) Megaphones
(D) Lanterns

_____ 3. The Civil War
(A) Deterred the development of telegraphic communications
(B) Had no effect on telegraphic communications
(C) Had little effect on telegraphic communications
(D) Brought about a substantial rise in the use of telegraphic communications

_____ 4. AT&T was formed in 1885
(A) As a franchise company
(B) As a local telephone company
(C) As a long distance telephone company
(D) As the headquarters company for the Bell System

_____ 5. Which of the following statements best describes the early telephone instruments?
(A) The same device served as both transmitter and receiver
(B) The telephone had no bell or call signal
(C) The telephone was a crude, cumbersome device
(D) All of the above

COMPETENCY GOAL 12: The learner will access a database service/bulletin board.

OBJECTIVE 12.1 Describe the process of preparing for database/bulletin board access (scope, topic, search criteria, etc.).

Test Item 012-12.1-01

INSTRUCTION TO STUDENTS: Complete the following statements as indicated.

1. Write the directions for **preparing** to access a bulletin board service.

(1) ____________________

(2) ____________________

(3) ____________________

(4) ____________________

(5) ____________________

2. Write the directions for **preparing** for database access.

(1) ____________________

(2) ____________________

(3) ____________________

(4) ____________________

(5) ____________________

3. Write a **search problem.** ____________________

____

4. Write a **search objective**. ____________________

____

5. Write a **search strategy**.

(1) ______________________________

(2) ______________________________

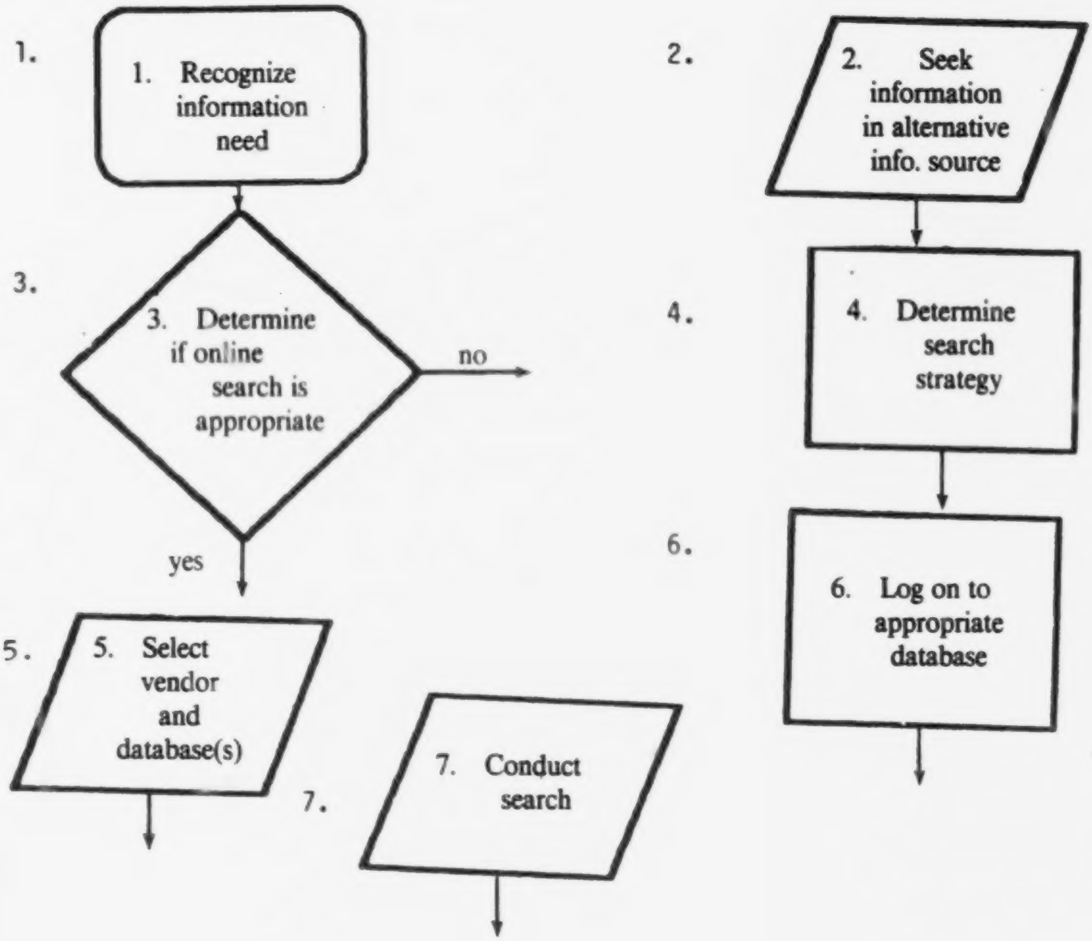
(3) ______________________________

(4) ______________________________

(5) ______________________________

Test Item 012-12.1-02

DIRECTIONS TO STUDENTS: Study the following flowchart symbols and the statements in each symbol. In the blanks following the flowchart symbols, write the number that corresponds with each symbol to determine the **order of steps in preparing for a database search.**


1.
1. Recognize information need
2.
2. Seek information in alternative info. source
3.
3. Determine if online search is appropriate
no
yes
4.
4. Determine search strategy
5.
5. Select vendor and database(s)
6.
6. Log on to appropriate database
7.
7. Conduct search

In the space below, place the **number of the symbol** that represents the **order** of the steps in preparing for a database access.

1. ________

2. ________

3. ________

4. ________

5. ________

6. ________

7. ________

OBJECTIVE 12.2: Demonstrate telecommunication linkage, log-on/off procedures, search a database, download, and print a database/bulletin board file.

Test Item 012-12.2-01

INSTRUCTIONS TO STUDENTS: Exhibit the ability to perform a database search by completing the following activity using a telecommunication database/bulletin board:

1. Using a telecommunication database, search the NEWS database for the text of the top news story of the day, and print a copy of the text.

2. Using a telecommunication database, search the FOREIGN NEWS database for the text of the top news story of the day, and print a copy of the text.

3. Using a telecommunication database, search the MOVIES for a description of the top movie for the previous week, and print a copy of the description.

4. Using a telecommunication database, search the STOCK SYMBOL database for the stock symbol for International Business Machines and use the symbol to obtain the latest possible stock market quote for Intenational Business Machines stock.

5. Log-on to a bulletin board system and read the help file on how to download a file from that system. Locate the command to view the files that the system has in the file directory. While scanning through the file directories, locate the list of bulletins that have been added this week. Use the system's appropriate command to download the weekly news bulletins. Make sure you have a data disk so that the file can be saved to disk.

COMPETENCY GOAL 13: The learner will use voice and/or electronic mail.

OBJECTIVE 13.1: Create a message for voice/electronic mail.

Test Item 013-13.1-01

INSTRUCTIONS TO STUDENT: Develop a message for voice mail after reading the following case study:

Call Ms. Tina Johnson and schedule an appointment for Monday with her to discuss the new soap advertisement. The meeting needs to be at 9 a.m. in your office. When you reach the company where Ms. Johnson is employed, the operator puts your call through to her office. Ms. Johnson is not available and her voice message asks you to leave a message.

In the space below, write the message you would leave on Ms. Johnson's voice mail system.

Test Item 013-13.1-02

INSTRUCTION TO THE STUDENT: Compose a message to be sent by electronic mail to a student in a computer applications class in another school asking him/her if he/she would like to correspond with you electronically during the school year.

OBJECTIVE 13.2: Demonstrate telecommunications linkage, log-on/off procedures, and transmit/retrieve messages.

Test Item 013-13.2-01

INSTRUCTIONS TO STUDENTS: Demonstrate the correct procedures for sending electronic mail.

1. Boot the system according to the documentation for the type of equipment/software you are using.
2. Load the communication component for the type of software you are using.
3. Adjust status settings according to the documentation for the type of software you are using.
4. Follow the instructions in your documentation for the type of software you are using and send the following message:

   Hello! There are several items that need your attention before you attend the Board of Directors meeting tomorrow, in addition, you have a change in your schedule for this evening.

   (1) Mr. Johnson needs to talk to you before you present the new product ideas at the board meeting tomorrow.

   (2) Ms. Smith has the budget completed for the new product, and she will send it by FAX at 5:00 p.m. today.

   (3) Mr. Hamilton, the new board member, called to let you know that he will not be able to meet you for dinner until 8:00 tonight. He has changed the reservations. If he does not hear from you by 5:00 p.m., he will assume that the change in time is suitable.

   (4) Mrs. Rogers is checking on the contract negotiations for the new product and will have this information ready for you by 7:00 a.m. tomorrow. she is willing to meet you for breakfast at 7:30 a.m. Please leave a message at the hotel desk if you would like to review the material with her in the morning.

   Please acknowledge receipt of the message.

   (your name)

5. Proofread and edit the message.
6. Use a data diskette to save a copy of the message.
7. Send the message according to your software instructions
8. Log off the system, return to the menu, and exit the program.

Test Item 013-13.2-02

INSTRUCTIONS TO STUDENTS: Demonstrate the correct procedures for retrieving an electronic message.

1. Boot the system according to the documentation for the type of equipment/software you are using.
2. Load the communication component for the type of software you are using.
3. Adjust status settings to receive data according to the documentation for the type of software you are using.
4. Follow the instructions in the documentation for the type of software you are using and receive the message. (NOTE: The instructor will make the necessary arrangements with the host computer for you to receive a message.)
5. Use a data diskette to save a copy of the message.

COMPETENCY GOAL 14: The learner will perform image transmission.

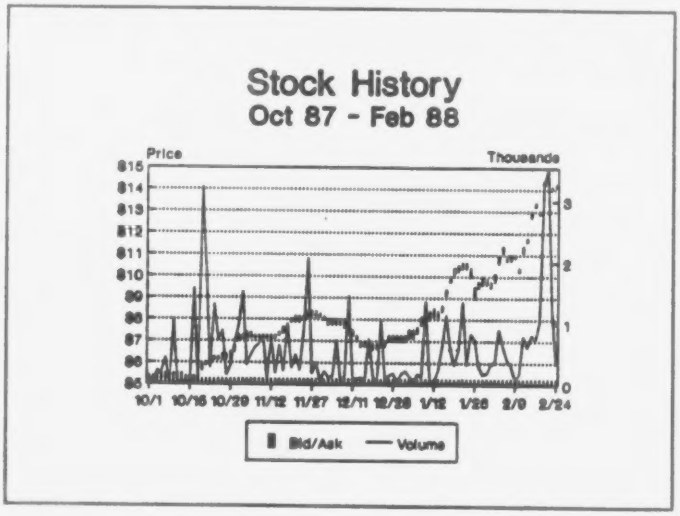
OBJECTIVE 14.1: Create image materials.

Test Item 014-14.1-01

INSTRUCTION TO STUDENTS: Cut a picture, diagram, graph, chart or article from a newspaper or magazine and paste it on an 8½" by 11" piece of paper in preparation for sending by facsimile equipment.

Test Item 014-14.1-02

INSTRUCTION TO STUDENTS: Using equipment and software available to you, prepare the following chart for sending by facsimile equipment.



OBJECTIVE 14.2: Demonstrate telecommunications linkage and log-on/off procedures and transmit image(s).

Test Item 014-14.2-01

INSTRUCTIONS TO STUDENTS: Make a picture of the students in your classroom. Have the photograph developed and using the facsimile equipment available to you, send the photograph via telecommunications to another school with which you are communicating.

1. Follow the documentation manual for your facsimile machine to send an exact message.
2. Make the necessary connection for ensuring that the sending and receiving machines are compatible.
3. Log-on.
4. Scan the photograph and encode the information.
5. Transmit the photograph.
6. Log-on.

Test Item 014-14.2-02

INSTRUCTIONS TO STUDENTS: Your District FBLA Advisor has requested detailed directions on how to get to your school. Using a road map of your area, send a copy of the map to the FBLA District Advisor using facsimile equipment available to you.

1. Follow the documentation manual for your facsimile machine to send an exact message.
2. Make the necessary connection for ensuring that the sending and receiving machines are compatible.
3. Log-on.
4. Scan the map and encode the information.
5. Transmit the map.
6. Log-off.

KEY TO TEST ITEMS

FOR TELECOMMUNICATIONS

Test Item 010-10.1-01

1. C
2. A
3. C
4. B
5. C

Test Item 010-10.1-02

1. The main advantage of using a database is speed and the reduction in time spent researching a topic. Jeanne can spend more time on writing the term paper.

2. Speed is the primary advantage of electronic mail.

3. Computers and telecommunications make possible the electronic transfer of funds between accounts from one bank to another, thereby, eliminating the need for paper transfer instruments such as checks or cash.

4. a. Voice response—conversion of computer output into spoken words and phrases that a human being can hear and understand.
   b. Voice recognition—the ability of a computer to understand and react to the human voice rather than only being able to accept typed commands.
   c. Voice store-and-forward systems—enables a computer system to accept a message and store it until a transmission path is available or until the desired party calls to retrieve it.

5. Home shopping allows the user to see a product or service advertised on the television or microprocessor screen, order it via terminal, and arrange for payment by a credit card. An elderly person that is unable to drive (walk, etc.) could function more independently.

Test Item 010-10.2-01

1. G
2. L
3. E
4. M
5. I
6. T
7. B
8. H
9. D
10. K
11. C
12. N
13. V
14. P
15. J
16. U
17. F
18. Q
19. S
20. R
21. A
22. O

Test Item 010-10.2-02

1. A
2. D
3. B
4. B
5. C
6. C
7. B
8. A
9. D
10. B
11. C
12. A
13. C
14. A
15. D
16. C
17. D
18. B
19. A
20. A
21. B
22. D

Test Item 010-10.3-01

1. Voice communications is known as telephony.
2. Data communications is the transmission of data—numbers, letters, facts—from one location to another, usually from one computer or computer terminal to another.
3. Message systems send messages in data form; that is, telegrams or teletypewriter messages. They are message system because they are used to transmit messages rather than conversation.
4. Image systems send exact messages in facsimile or video form.
5. Telephone—it has been in existence for over a century.

Test Item 010-10.3-02

1. C
2. D
3. B
4. D
5. B

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Test Item 010-10.4-01

1. Microcomputer—The microcomputer is the workstation. It is connected to a modem and operates the communications software, allowing one to communicate with another computer.

2. Communications Software—The communications software is the brain of the telecommunications system. It tells the modem and computer what to do, including dialing and sending and receiving text.

3. Modem—The modem is an internal or external device that connects the computer and a phone line. It converts computer (digital) signals to phone (audio) signals and vice versa so that information can be sent and received over the phone lines.

4. Telephone Line—The phone line is the conduit for telecommunicated messages and information. It carries the signals converted by the modem across the street, the nation, or the world. It also carries signals back to the modem where they are converted and displayed on the computer screen.

5. A host computer is usually a mini- or mainframe computer that stores information and/or facilitates communication. It is sometimes referred to as the "system"or the "network." Subscribers to a commercial network can access and contribute information via a personal computer, modem, and phone line. When you are "connected" to a network, the activity on your screen reflects what is being transmitted to and from the host.

Test Item 010-10.4-02

1. F
2. A
3. D
4. E
5. B

Test Item 010-10.5-01

Checklist:

_____ Printed copy of news story.

_____ Printed copy of incoming mail.

_____ Printed copy of messages.

_____ Printed copy of book description.

_____ Printed copy of sports article.

Test Item 010-10.5-02

Checklist

_____ Search completed with printed copy of news story.

_____ Search completed with printed copy of description of movie.

_____ Printed copy of accurate messages.

_____ Search completed with printed copy of weather report.

_____ Search completed with printed copy of definition.

Test Item 011-11.1-01

1. Job displacement—The move toward modularization of telecommunications equipment reduces the need for skilled labor to repair and replace the equipment. Malfunctioning units are replaced rather than repaired. New packaging techniques makes it possible to install microchips and integrated circuits within terminal equipment, requiring less labor to perform these packaging operations by hand. The use of fiber optics and satellites have reduced the number of personnel needed to install transmission cables because fewer transmission cables are required and fewer personnel are needed to splice it. This new technology has resulted in job displacement and is not being offset by new manufacturing jobs because the manufacturing process has become so automated. The social impact has become a very negative issue because jobs have been eliminated and workers must be retrained and relocated. This process is very expensive for both individual workers and companies who retrain and relocate workers.

2. Many companies offer to retrain and relocate workers whose jobs have been displayed by automation. Most medium-sized and smaller telecommunications companies cannot afford to help workers whose jobs have been displaced. Even with retraining and relocation assistance, there are still many problems the workers face in learning a new job and adjusting to relocation.

3. When a person/business subscribes to a database service, bulletin board, or electronic mail; the service issues the subscriber a PASSWORD. The subscriber pays for access to the service. The service sends the subscriber a contract that the subscriber signs indicating that the subscriber will not permit unauthorized use of the PASSWORD. Sometimes a legal disclaimer is sent to the subscriber by electronic mail. As long as the paid subscriber uses the password, it is considered legal; a subscriber that allows a nonsubscriber to use the password is permitting illegal use of the password. Therefore, a password should be protected at all times. The subscriber can be prosecuted for allowing someone else to use the password.

4. Many people fear that the legal use of data banks threatens to violate individual privacy. Potential targets for abuse include data banks containing information about consumer credit, legal political activity, and financial holdings. Almost anyone can find out what everyone else

is doing or has done, if not in one place then in another. Government data banks include information about our military service, arrest records, school records, family financial data, medical records and insurance claims, telephone bills, job applications and performance reviews, to name a few. On a typical day, some of this information is passed from one computer system to another five times. In addition to the information kept by government agencies, more is maintained privately by banks, credit card companies, retail stores, credit unions and bureaus, and dozens, if not hundreds, of other organizations. The potential for the abuse of information is enormous and its prevention seemingly impossible. It is this darker side of the information revolution that has spawned much understandable fear of computers and telecommunication.

5. This is a thought question and should be answered to the satisfaction of the teacher. The idea here is that we as individuals can learn and understand each other better through improved communications. The telecommunications capabilities alone will not produce positive or negative impacts on society, but rather the messages created for dissemination by this powerful medium will ultimately produce better understanding among world users.

Test Item 011-11.1-02

1. A computer program downloaded from a telecommunication correspondence would be a program in one of many different programming languages that will cause the computer to process some kind of data. A computer virus is also a programming language program, however, the intent of a virus is to destroy the internal memory of the computer.

2. Computer ethics refers to a code of conduct regarding the proper use of computers; for example, not copying a video game that is copyrighted or looking at computer printout that are private. Individuals should develop a code of ethics that helps promote honesty in the use of computers. Frequently, many people have access to company information stored in a database. If the individual or business uses this information for the purpose intended, there is no problem. The unauthorized use of this information is when it becomes illiegal.

3. Electronic banking is one of the newest services offered by many banks and involves banking with either your own computer or with an automatic teller terminal. Usually these machines are connected by private lines to the bank's central location rather than to a branch office. This system permits customers to withdraw or deposit to checking or savings account, payment to loan and credit card accounts, transfer of funds between accounts, and it provides information about account balances. Electronic fund transfer is the ability of the banks to keep track of monetary balances as records of number without actually involving the exchange of currency.

4. The Fair Credit Reporting Act recognizes a citizen's right to examine and challenge data bank information on his or her credit rating. The Financial Privacy Act was passed to protect individuals and organizations from the undesirable use of data-bank information. The goals of both of these acts are to protect information about individuals and organizations and sets controls and guidelines concerning data bank information.

5. A white-collar computer criminal is usually someone in management that has access to information stored in data banks and illegally transfers data/funds for their own gain. A computer "hacker" is usually a computer enthusiasts that breaks into computer systems and data banks for the love of it and damages them or simple wants to explore them. The violations of a computer "hacker" are just as illegal as the white-collar computer criminal that transfers data/funds for his/her own gain.

Test Item 011-11.2-01

1. The need for communication has existed since the earliest days of human history. As soon as people began to depend on each other, it became necessary to exchange data and information. One of the earliest forms of recorded communication was through pictures and symbols. As people began to travel distances to do business with each other, the need for other methods of communication began to grow. Different methods of telecommunicating (any system for communicating over a considerable distance) were developed by civilizations as the needs grew—sound, smoke signals, light signals, flags, runners or riders, and carrier pigeons. Historically, sound was limited by how far the sound would carry, smoke signals was affected by wind conditions, runners and horsemen tired and were captured by the enemy, light signals could only carry as far as the eye could see, flag signals required that the receiver had special training, and pigeons could only carry short messages. As political, military, religious, and commercial organizations have grown in complexity, more elaborate telecommunications systems have been needed to coordinate their efforts. The development of the postal service was and continues to be an important step in communication, however, its usefulness is limited to messages that do not require immediate action. The discovery of electricity lead to the invention of the telegraphy. This invention laid the foundations for the development of the telephone. Shortly after Bell's invention of the telephone, the American Bell Telephone Company was formed in 1877. With the discovery in 1895 that information could be transmitted through the air, radio, or wireless, telecommunications was born. These two major inventions joined forces and led to the modern day telecommunications systems that we enjoy today.

2. (B) Alexander Graham Bell invents the telephone
   (E) Direct long-distance dialing begins
   (D) Touch-tone service, introducing telephones with push buttons instead of rotary dials
   (C) AT&T 800 service begins
   (A) Court-ordered breakup of the Bell System

3. (D) Smoke Signals
   (A) Carrier Pigeons
   (C) Telegraph
   (B) Telephone
   (E) Computer

4. AT&T was originally the long distance company. Later it became the headquarters company, sometimes referred to as the parent company, of the Bell System.

5. Prior to the invention of the telegraph, the only other method of communication over a distance was postal service, which was very slow and unreliable because it was accomplished by horseback, stagecoach, and/or steamboat.

Test Item 011-11.2-02

1. B
2. A
3. D
4. C
5. D

Test Item 012-12.1-01

1. (1) Log on to a bulletin board system and read the help file on how to download a file from that system.
   (2) From the main menu, locate the command to view the files that the system has in the file directories.
   (3) Scan through the file directories and locate the file that is needed.
   (4) Use appropriate command to download the file and save it on a data disk.
   (5) Log-off the system.

2. (1) Recognize information needed.
   (2) Determine if online search is appropriate.
   (3) Select vendor and database(s) (In most cases, the student will not have the option of selecting the vendor. If you are accessing a particular database, make sure the students are familiar with what databases are available to them.)
   (4) Determine search strategy.
   (5) Log-on to appropriate database.

3. Example: What was the average stock prices for each quarter of the previous year for IBM stock?

4. Example: To determine the average stock price for IBM stock for each quarter for the previous year.

5. (1) Recognize information needed.
   (2) Determine if online search is appropriate.
   (3) Select vendor and database(s).
   (4) Determine what databases are available for problem and make a list of databases to access.
   (5) Log-on to appropriate database.

Test Item 012-12.1-02

1. 1
2. 3
3. 2
4. 5
5. 4
6. 6
7. 7

Test Item 012-12.2-01

Checklist:

_____ Followed proper procedure for turning on computer.

_____ Loaded communication software.

_____ Performed computer/telephone linkage to a database/bulletin board service based upon procedure for type of computer and software available.

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_____ Checked for connection.

_____ Entered correct log-on information such as a password if required.

_____ Coded in correct symbols for the database/bulletin board.

_____ Turned on the function key that enables information to be downloaded to a file/disk.

_____ Logged-off (disconnect).

_____ Printed file.

Test Item 012-12.2-02

Checklist:

_____ Followed proper procedure for turning on computer.

_____ Loaded communication software.

_____ Performed computer/telephone linkage to a database/bulletin board service based upon procedure for type of computer and software available.

_____ Checked for connection.

_____ Entered correct log-on information such as a password if required.

_____ Coded in correct symbols for the database/bulletin board.

_____ Turned on the function key that enables information to be downloaded to a file/disk.

_____ Logged-off (disconnect).

_____ Printed file.

Test Item 013-13.1-01

1. Call Ms. Tina Johnson and schedule an appointment for Monday with her to discuss the new soap advertisement.
2. Meeting should be at 9 a.m. in your office.
3. Please confirm receipt of this message.

Thank you

(student's name)

Test Item 013-13.1-02

Hello,

My name is (student's name), and I am a student at (name of school). We are learning how to do electronic mail in my Computer Applications II class. We are looking for other interested students that would like to correspond with us. Would you be willing to do this?

I am interested in exchanging information about our school, community, and social life. Hope you are interested.

I find this process of communicating very exciting. Hope to hear from you soon.

Sincerely,

(name of student)

Test Item 013-13.2-01

Checklist

_____ Followed proper procedure for turning on computer.

_____ Loaded communication software.

_____ Performed computer/telephone linkage to an electronic mail service based upon procedure for type of computer and software available.

_____ Checked for connection.

_____ Entered correct log-on information such as a password if required.

_____ Coded in identification.

_____ Accessed the correct menu item.

_____ Printed message.

_____ Proofed and edited messages.

_____ Logged-off (disconnect).

Test Item 013-13.2-02

Checklist:

_____ Followed proper procedure for turning on computer.

_____ Loaded communication software.

_____ Performed computer/telephone linkage to an electronic mail service based upon procedure for type of computer and software available.

_____ Checked for connection.

_____ Entered correct log-on information such as a password if required.

_____ Coded in identification.

_____ Accessed the correct menu item to receive a message.

_____ Printed message.

_____ Logged-off (disconnect).

Test Item 014-14.1-01

Checklist:

_____ Picture pasted properly.

Test Item 014-14.1-02

Checklist:

_____ Followed proper procedures for turning on facsimile machine.

_____ Made the necessary connection for ensuring that the sending and receiving machines are compatible.

_____ Logged-on.

_____ Scanned the material (graph, chart, photograph, map) and encode the information.

_____ Transmitted.

_____ Logged-off.

Test Item 014-14.2-01

Checklist:

_____ Followed proper procedures for turning on facsimile machine.

_____ Made the necessary connection for ensuring that the sending and receiving machines are compatible.

_____ Logged-on.

_____ Scanned the material (graph, chart, photograph, map) and encode the information.

_____ Transmitted.

_____ Logged-off.

Test Item 014-14.2-02

Checklist:

_____ Followed proper procedures for turning on facsimile machine.

_____ Made the necessary connection for ensuring that the sending and receiving machines are compatible.

_____ Logged-on.

_____ Scanned the material (graph, chart, photograph, map) and encode the information.

_____ Transmitted.

_____ Logged-off.

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COMPETENCIES
FOR
UTILITIES

COMPETENCY GOAL 15: The learner will use a utility program.

COMPETENCY OBJECTIVES

15.1 Describe the purpose of screen, keyboard, and printer utility programs.

15.2 Demonstrate start-up procedures to load a utility program.

15.3 Identify control keys used to activate a utility program.

STUDENT ACTIVITIES

FOR
UTILITIES

Planning Notes

TM1 through TM12

Orientation to Utility Software Programs

1. Discuss the purpose of a utility program.
2. Discuss terminology as it relates to utility programs.
3. List several types of available utility programs such as:
    a. screen utilities
    b. keyboard utilities
    c. printer utilities

Screen Utility Programs

1. Discuss the purpose of a screen utility program.
2. Discuss the advantages of a screen utility program.
3. Load a screen utility program and observe the proper keys to activate the available options.
4. Use the available option(s) of the current screen utility.

Keyboard Utility Programs

1. Discuss the purpose of a keyboard utility program.
2. Discuss the advantages of a keyboard utility program.
3. Load a keyboard utility program and observe the proper keys to be used to activate the available options.
4. Use the available option(s) of the current keyboard utility.

1. Discuss the purpose of a printer utility program.
2. Discuss the advantages of a printer utility program.
3. Load a printer utility program and observe the proper keys to be used to activate the available option(s).
4. Use the available option(s) of the current printer utility.

HO1

GRAPHIC PRINTER CODES

The following print codes will work with IBM and Epson printers. Many software packages allow the insertion of printer codes within the document or as an option on the print menu. Depending upon the software the 0 might be omitted and a comma or diagonal is used between numbers.

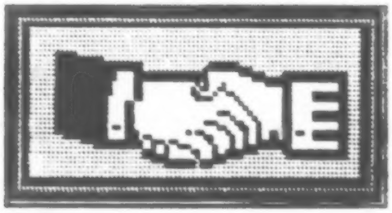
PRINT TYPE	CODE	CANCEL CODE
Compressed Print	015	018
Double Wide	014	020
Extra Double Wide	027 087 001	027 087 000
Double Strike (NLQ)	027 071	027 072
Emphasize (Dark)	027 069	027 070
Superscript (Above Line)	027 083 000	027 084
Subscript (Below Line)	027 083 001	027 084
LINE FEED CODES		
Eight (8) lines per inch 88 Lines per Page	027 048	027 050
Double Spacing	027 065 024 027 050	027 050
Triple Spacing	027 065 036 027 050	027 050
Underline	027 045 001	027 045 000

For a combination of 132 characters and 157 lines per page – this is very tiny print

Code: 015 027 083 001 027 051 015

TM 1

WELCOME TO UTILITY SOFTWARE



The Helping Hand Software

Source: **Summer Workshop, 1988**
Utility Presentation
Created with **IBM-StoryBoard** Software
By Monica S. Faulkner

Utilities
K-6

Utilities can help you the computer operator in a variety of ways . . .

such as → → →

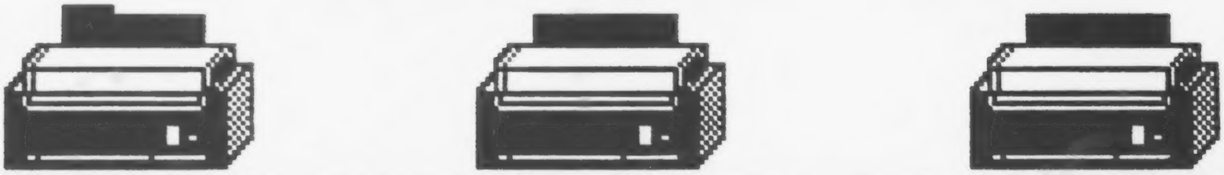
Source: **Summer Workshop, 1988**
Utility Presentation
Created with **IBM-StoryBoard** Software
By Monica S. Faulkner

- * Enhance Printer Usage
- * Enhance Screen Features
- * Enhance Keyboard Usage
- * Assist in File Maintenance
- * Enhance Existing Software

Source: **Summer Workshop, 1988**
Utility Presentation
Created with IBM-StoryBoard Software
By Monica S. Faulkner

Enhance Printer Usage

- Typestyles
- Lines per Page
- Lines per Inch
- Type Quality
- Printer Speed-Spooler

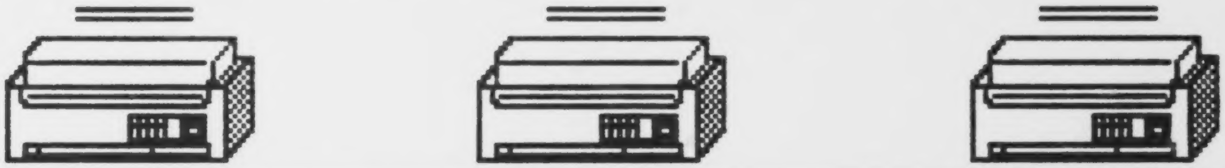


Source: **Summer Workshop, 1988**
Utility Presentation
Created with IBM-StoryBoard Software
By Monica S. Faulkner

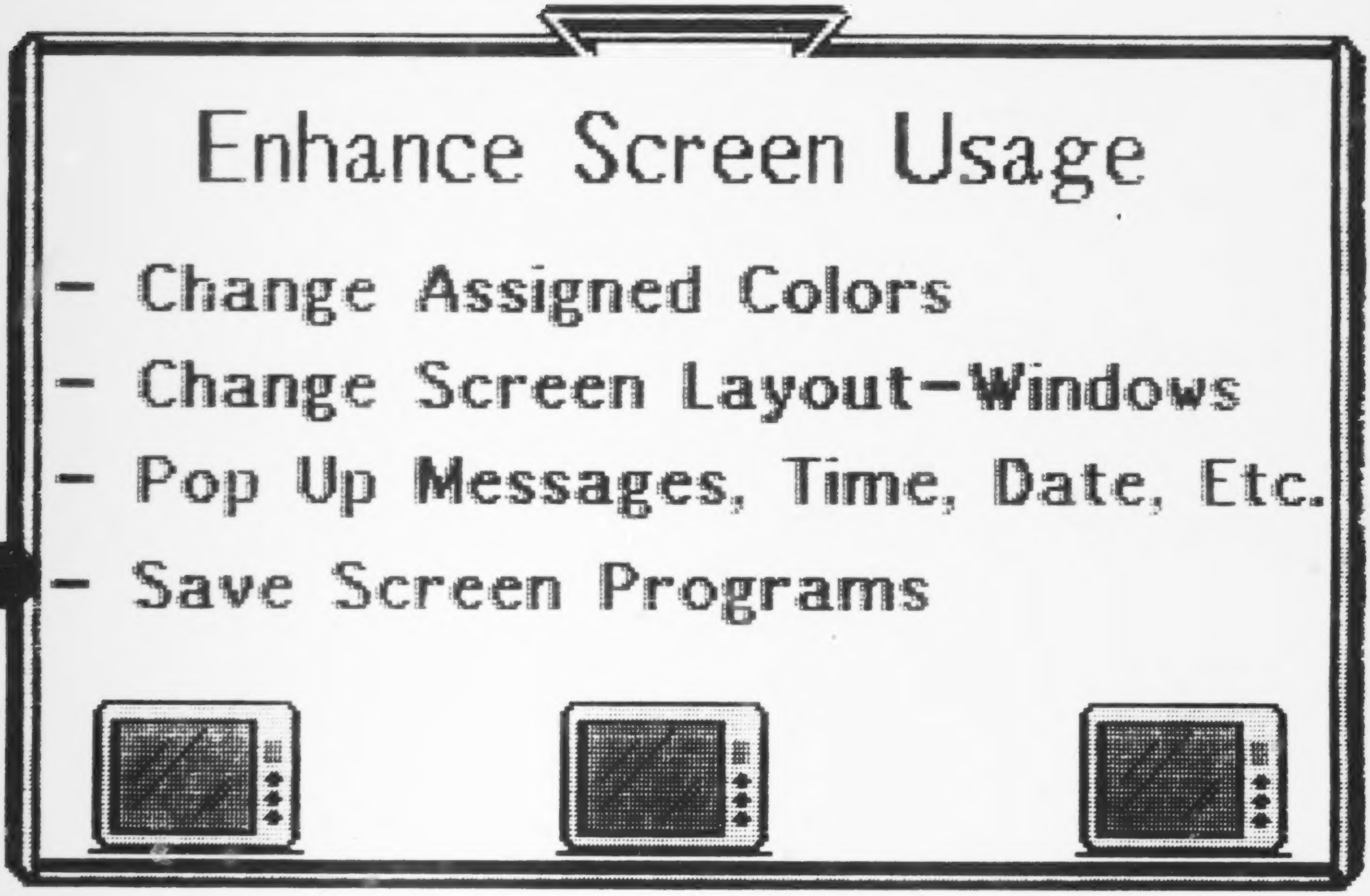
Enhance Printer Usage

WARNING . .

The Utility purchased must be purchased for a specific printer model-IBM, Espon, Etc.



Source: **Summer Workshop, 1988**
Utility Presentation
Created with IBM-StoryBoard Software
By Monica S. Faulkner



Enhance Screen Usage

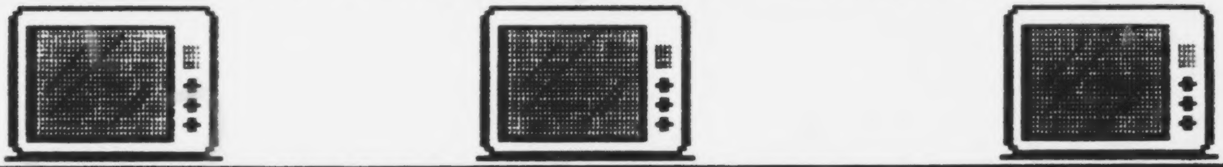
- Change Assigned Colors
- Change Screen Layout-Windows
- Pop Up Messages, Time, Date, Etc.
- Save Screen Programs

Source: **Summer Workshop, 1988**
Utility Presentation
Created with IBM-StoryBoard Software
By Monica S. Faulkner
Transparency or Handout Material

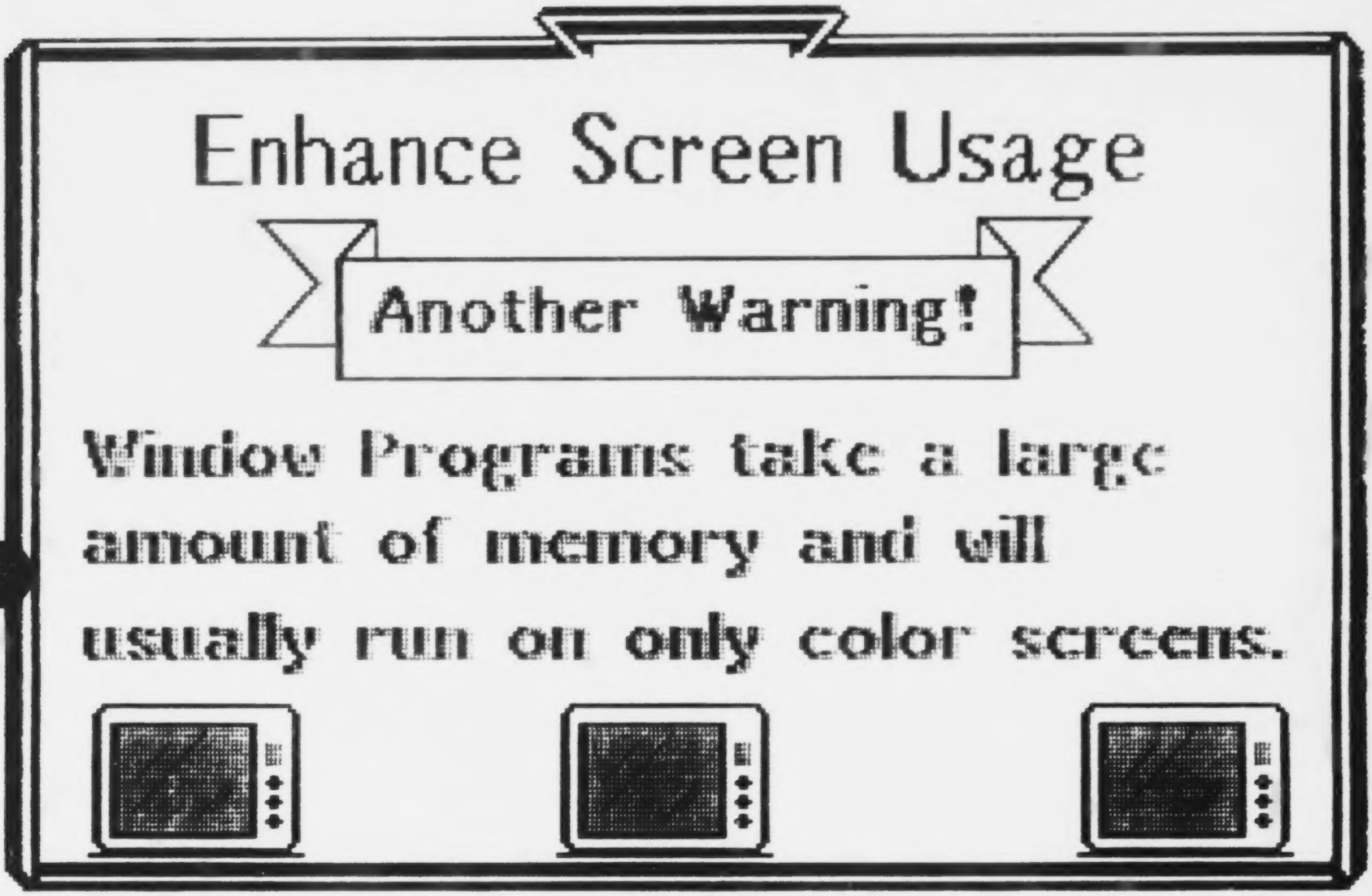
Enhance Screen Usage

WARNING . . .

When purchasing Screen Utilities the monochrome/color types must be taken into consideration.



Source: **Summer Workshop, 1988**
Utility Presentation
Created with **IBM-StoryBoard** Software
By Monica S. Faulkner



Enhance Screen Usage

Another Warning!

Window Programs take a large amount of memory and will usually run on only color screens.

Source: **Summer Workshop, 1988**
Utility Presentation
Created with IBM-StoryBoard Software
By Monica S. Faulkner

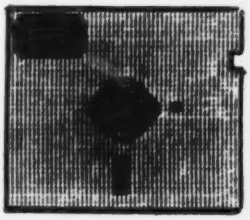
Enhance Keyboard Usage

- Change Keyboard Configuration
- Reassign Key Functions
- Activate Background Programs

Source: **Summer Workshop, 1988**
Utility Presentation
Created with IBM-StoryBoard Software
By Monica S. Faulkner

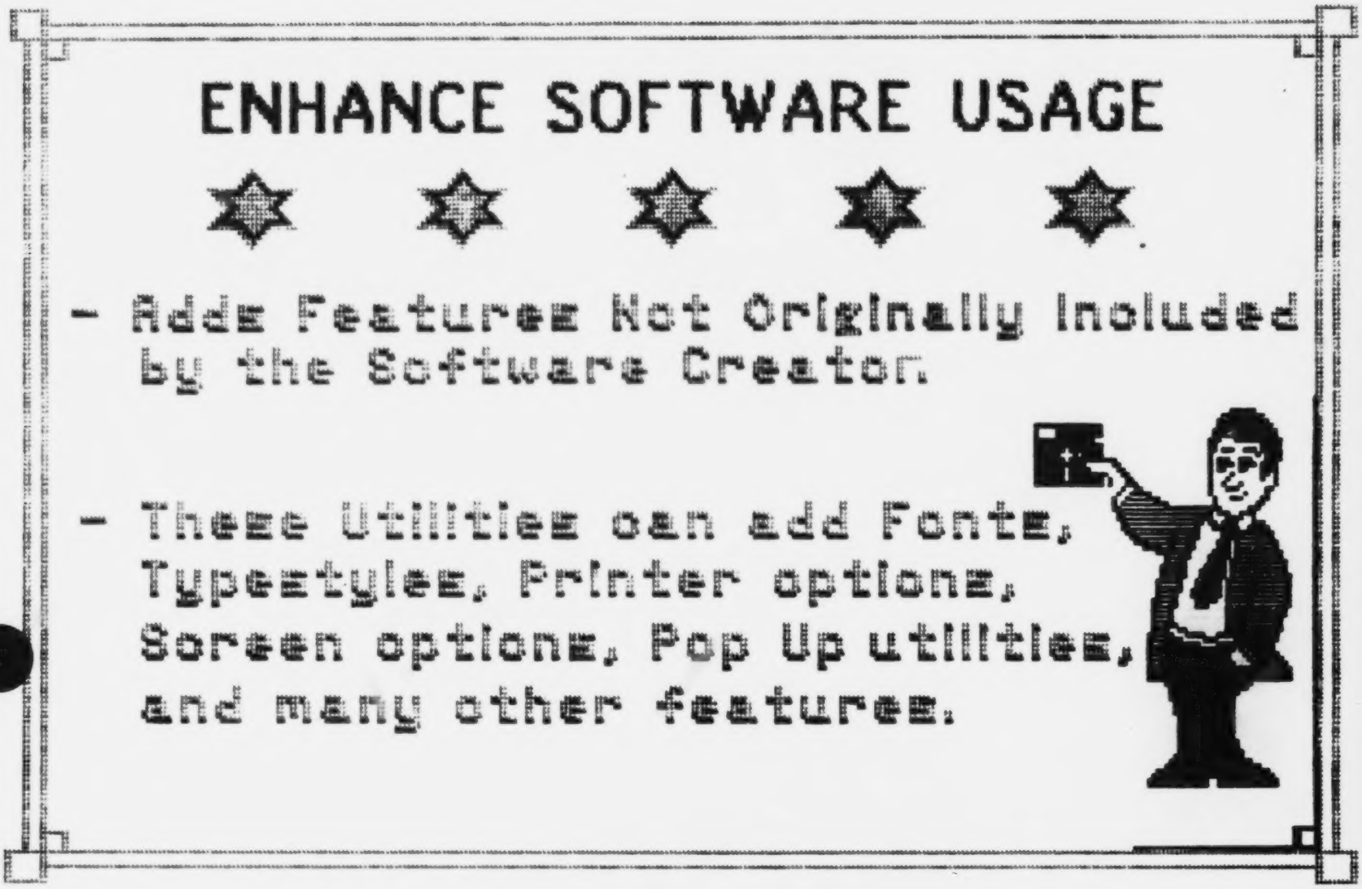
ASSIST IN FILE MAINTENANCE

- Organize Hard Drive Files
- Locate Misplaced Files
- Unerase Files
- Archive Files
- Unprotect Files
- Batch files - eliminates
  Copy Con: Command



Source: **Summer Workshop, 1988**
Utility Presentation
Created with IBM-StoryBoard Software
By Monica S. Faulkner

TM 11



ENHANCE SOFTWARE USAGE

- Adds Features Not Originally Included by the Software Creator.

- These Utilities can add Fonts, Typestyles, Printer options, Screen options, Pop Up utilities, and many other features.

Source: **Summer Workshop, 1988**
Utility Presentation
Created with IBM-StoryBoard Software
By Monica S. Faulkner

PURCHASING UTILITY SOFTWARE

✓ Public Domain Software

Usually a good value

Support often weak

✓ Vendor Created Software

More expenses

Support sometimes better

Source: **Summer Workshop, 1988**
Utility Presentation
Created with IBM-StoryBoard Software
By Monica S. Faulkner

EVALUATION MEASURES
FOR
UTILITIES

COMPETENCY GOAL 15: The learner will use a utility program.

OBJECTIVE 15.1: Describe the purpose of screen, keyboard, and printer utility programs.

Test Item 015-15.1-01

INSTRUCTIONS TO STUDENTS: Match the terms listed in the left column with the correct description given in the list on the right. Write the corresponding letter in the blank provided.

_____ 1. Window program

_____ 2. Print spooler

_____ 3. Printer font

_____ 4. Utility

_____ 5. Keyboard utility

_____ 6. Hard drive organizer

_____ 7. Screen utility

_____ 8. Public domain

_____ 9. Autoexec batch file autoload, autoboot

_____ 10. Background

A. Enhances software or an attached peripheral such as the screen, printer or keyboard

B. Reserves a small portion of RAM for printer output and frees the CPU

C. Divides the screen for access of multiple programs

D. Enhances the keyboard in a way(s) that makes it more beneficial to the user

E. Enhances the screen in a way(s) that makes it more beneficial to the user

F. The style, size or pitch of print which is printed by the printer

G. Inexpensive software that is not copyrighted

H. Reserved area in RAM that utilities are often run from and accessed when wanted

I. Software that is marketed by a large publishing house

J. A file that when used will execute or load one or more programs at a time

K. Program that helps the user organize files or software on a hard/fixed disk system

L. Enhances the printer in a way that is beneficial to the user

Test Item 015-15.1-02

INSTRUCTIONS TO STUDENTS: Complete the sentences below by writing in the blank provided the term which best completes the statement.

1. A program that enhances software or an attached peripheral such as the screen, printer, or keyboard is called a ____________________ .
2. A program that divides the screen for access of multiple programs is called a ____________________ .
3. A program that reserves a small portion of RAM for printer output and frees the CPU is called a ____________________ .
4. A program that enhances the keyboard in a way(s) that makes it more beneficial to the user is called a ____________________ .
5. The style, size or pitch of print which is printed by the printer is called a ____________________ .
6. Inexpensive software that is not copyrighted is called ____________________ .
7. A reserved area is RAM in which utilities are stored and accessed when needed is called ____________________ .
8. A file that when used will execute or load one or more program at a time is called an ____________________ .
9. A program that helps the arrange files or software on a hard/fixed disk system is called a ____________________ .
10. A program that will enhance the monitor or display in a way that is beneficial to the user is called a ____________________ .

OBJECTIVE 15.2: Demonstrate start-up procedures to load a utility program.

Test Item 015-15.2-01

INSTRUCTIONS TO STUDENTS: Demonstrate to the instructor the proper procedure(s) used to start up the given utility program by carrying out the following procedures:

1. Insert the utility disk at the proper time and in the proper drive.
2. Load the program with the proper command.
3. Activate the program at the proper time and place.
4. Use the program's features.

Test Item 015-15.2-02

INSTRUCTION TO STUDENTS: Explain in a few brief steps how to perform the following operations using the available (screen, printer, keyboard) utility program.

1. Explain at what point in the sequence of operations the available utility program will be inserted.

   ____

2. Explain which drive will be used for running the available utility program.

   ____

3. Explain which key(s) is/are used to activate the available utility program.

   ____

4. Explain the key(s) that will de-activate the available utility program.

   ____

5. Explain the key(s) which will activate or de-activate any available help screens which are present in the current utility program.

   ____

6. Explain the options which are available within the utility program.

   ____

OBJECTIVE 15.3: Identify control keys used to activate utility program.

Test Item 015-15.3-01

INSTRUCTIONS TO STUDENTS: Demonstrate to the instructor the keys used to activate and operate a given utility program by using the following procedures:

1. Proper key controls to load program
2. Proper keys to activate program
3. Proper key to activate help screens if applicable
4. Proper keys to de-activate program if applicable
5. Proper key(s) to make option selections if applicable

Test Item 015-15.3-02

INSTRUCTIONS TO STUDENTS: Fill in the steps that are required to complete the following operations using a given (screen, printer, keyboard) utility program.

1. How is the program loaded?

   ____

2. What key(s) are used to activate the program?

   ____

3. If help screens are available, what key(s) are used to activate and de-activate them?

   ____

4. What key(s) are used to select the various options available in the utility program being used?

   ____

TEST ITEM KEYS
FOR
UTILITIES

Test Item 015-15.1-01

1. C
2. B
3. F
4. A
5. D
6. K
7. E
8. G
9. J
10. H

Test Item 015-15.1-02

1. Utility program(s)
2. Window program
3. Print spooler
4. Keyboard utility
5. Font
6. Public domain
7. Background
8. Autoexec.bat, autoload, autoboot
9. Fixed/hard drive organizer
10. Screen utility

Test Item 015-15.2-01

Check List for Proper Start-Up Procedures for a Given Utility Program

_____ 1. Inserted the utility program at the proper time.

_____ 2. Used the proper command(s) to load the utility program.

_____ 3. Activated the utility program and the correct time and/or place.

_____ 4. Used the features within the utility program.

Test Item 015-15.2-01

The answers to this test item will vary depending upon what program is currently being used and tested.

Test Item 015-15.3-01

Check List for Identifying the Control Keys Used to Activate Utility Program

_____ 1. Used the proper control keys to load the program.

_____ 2. Used the proper keys to activate the program.

_____ 3. Activated the help screens if present.

_____ 4. Deactivated the program if possible.

_____ 5. Selected the options available.

Test Item 0015-15.3-02

The answers to this test item will vary depending upon what program is currently being used and tested.

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PARTIAL LISTING OF REFERENCES

FOR UTILITIES

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Graph Works. Mindscrape, 3444 Dundee Road, Northbrook, IL 60062. 1-312-480-7667.

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TABLE OF CONTENTS
FOR
PROJECT MANAGEMENT

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COMPETENCIES
FOR
PROJECT MANAGEMENT

COMPETENCY GOAL 16: The learner will use project-management software.

COMPETENCY OBJECTIVES

16.1 Identify the advantages of project-management software.

16.2 Recognize project-management software.

16.3 Identify applications in which project-management software can be used.

16.4 Locate, identify, and use appropriate control codes, and/or function keys.

STUDENT ACTIVITIES
FOR
PROJECT MANAGEMENT

Orientation to Equipment	**Planning Notes**
1. Define project management.	
2. Discuss the purpose of project-management software.	
3. Dicuss terminology as it relates to project-management software.	
4. List several advantages to using project-management software.	
5. List several business applications where project-management software can be of benefit to managers.	
Understanding the Various Phases of Project Management	
1. Discuss several available project-management software packages.	
2. Discuss the first phase in project-management: the planning outline.	TM1, TM2
3. Discuss the second phase in project-management: the scheduling of calendar time for each task to be completed.	TM1
4. Discuss the third phase in project-management: the allocation of resources to be used in the project such as personnel time and equipment.	TM1
5. Discuss the fourth phase in project-management: the tracking and reporting of time, materials and personnel used in the completed project.	TM1
Using Project-Management Software	
1. Load project-management software and observe the available options.	TM3, TM4
2. Create a project outline.	
3. Schedule the time for each task.	
4. Allocate resources for the porject.	
5. Print a report of the project.	

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Project Management
L-4

PROJECT MANAGEMENT PHASES

- **Planning**
- **Scheduling**
- **Allocating resources**
- **Tracking and reporting**

1.1

Source:
Harvard Project Manager Leader's Guide - Version 3.0
Software Publishing Corporation
Mountain View, California

TM 1

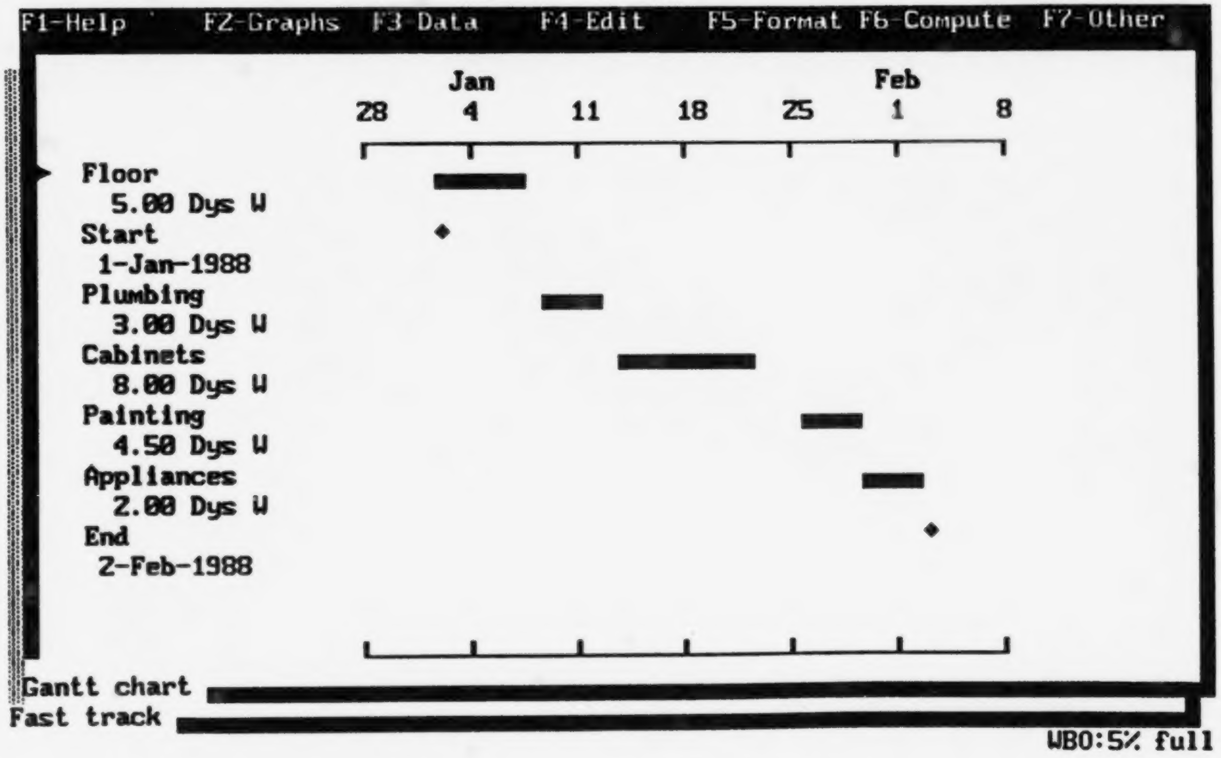
PROJECT MANAGEMENT SOFTWARE

To plan a project :

- Define the goal.
- Identify activities and tasks that must be completed to reach goal.
- Identify dependencies between activities and tasks.

Source:
Harvard Project Manager Leader's Guide - Version 3.0
Software Publishing Corporation
Mountain View, California

PROJECT MANAGEMENT SOFTWARE

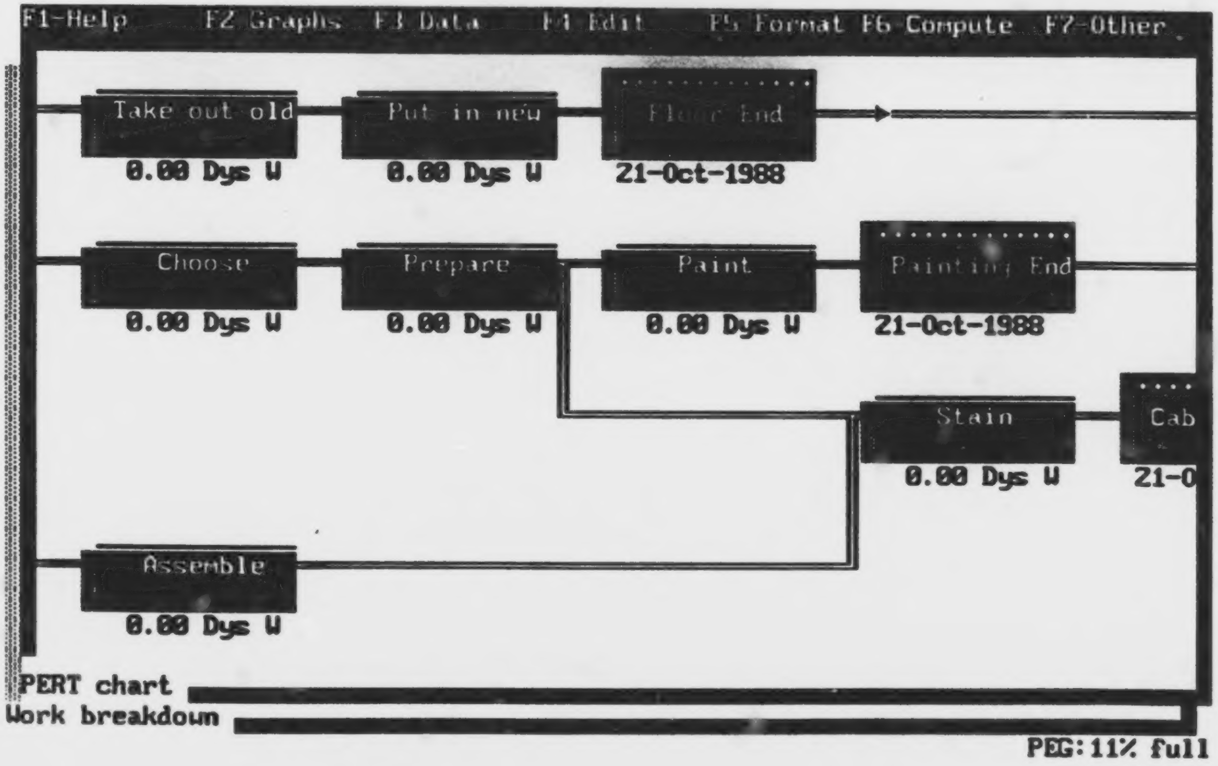

F1-Help
F2-Graphs
F3-Data
F4-Edit
F5-Format
F6-Compute
F7-Other
Jan
Feb
28
4
11
18
25
1
8
Gantt chart
Fast track
WBO:5% full

```
Floor
  5.00 Dys W
Start
 1-Jan-1988
Plumbing
  3.00 Dys W
Cabinets
  8.00 Dys W
Painting
  4.50 Dys W
Appliances
  2.00 Dys W
End
 2-Feb-1988
```

2.19

Source:
Harvard Project Manager Leader's Guide - Version 3.0
Software Publishing Corporation
Mountain View, California

PROJECT MANAGEMENT SOFTWARE


F1-Help F2-Graphs F3-Data F4-Edit F5-Format F6-Compute F7-Other
Take out old
0.00 Dys W
Put in new
0.00 Dys W
Floor End
21-Oct-1988
Choose
0.00 Dys W
Prepare
0.00 Dys W
Paint
0.00 Dys W
Painting End
21-Oct-1988
Stain
0.00 Dys W
Cab
21-O
Assemble
0.00 Dys W
PERT chart
Work breakdown
PEG: 11% full

2.21

Source:
Harvard Project Manager Leader's Guide - Version 3.0
Software Publishing Corporation
Mountain View, California

Project Management
L-7

TM 4

EVALUATION MEASURES

FOR
PROJECT MANAGEMENT

COMPETENCY GOAL 16: The learner will use project-management software.

OBJECTIVE 16.1: Identify the advantages of project-management software.

Test Items 016-16.1-01

INSTRUCTIONS TO STUDENTS: Place an X beside those statements which describe an advantage of project-management software in the blank provided.

_____ 1. Project-management software is basically a text editing type of software.

_____ 2. Project-management software can be used to prepare a creative end of the year financial report.

_____ 3. Project-management software can be used to manage time and people.

_____ 4. Project-management software is aimed at the clerical microcomputer operator.

_____ 5. Procject-management software helps reduce waste.

_____ 6. Project-management software is aimed at the business manager.

_____ 7. Project-management software can help forecast or predict problems in production manufacturing.

_____ 8. Project-management software is useful in mainly short term projects.

_____ 9. Project-management software often allows for information to be presented in graphic format.

_____ 10. Project-management software can be used to schedule just about any project that time, people and materials are important.

_____ 11. Project-management software usually allows for lag time to be incorporated in the plan.

_____ 12. Project-management software is a tool for creating desktop publishing materials.

Test Item 016-16.1-02

INSTRUCTIONS TO STUDENTS: List below five (5) advantages of using project-management software.

1. ______________________________ 2. ______________________________

3. ______________________________ 4. ______________________________

5. ______________________________

OBJECTIVE 16.2: Recognize project-management terms.

Test Item 016-16.2-01

INSTRUCTIONS TO STUDENTS: Match the terms listed in the left column with the correct description given in the list on the right. Write the corresponding letter in the blank provided.

_____ 1. Critical path

_____ 2. Gantt chart

_____ 3. Milestone

_____ 4. Negative slack

_____ 5. Project

_____ 6. Overhead

_____ 7. PERT chart

_____ 8. Slack

_____ 9. Resources

_____10. Scheduling

A. A graphic presentation of project where the x-axis equals time and y-axis equals list of task and milestones

B. A task with no duration

C. The status of the project

D. An organized set of tasks with goals to be completed within a certain time.

E. A path on which tasks have no lag time

F. A measure that indicates the project is longer than the amount of time allowed

G. Identifying the time of tasks, start, finish, slack, and critical path

H. Time, people, and materials

I. Graphic display of project in parallel or time sequence

J. Difference between available time and task duration

L. Amount of time in 24 hours

M. Fixed cost of supplies

Test Item 016-16.2-02

INSTRUCTION TO STUDENTS: Complete the sentence below by writing in the blank provided the term which completes the statement.

1. The graphic presentation of a propject where the x-axis equals time and y-axis equals list of task and milestones is called a ______________________.
2. A task with no duration is called ____________________.
3. An organized set of tasks with goals to be completed within a certain time is called ______________.
4. A path on which tasks have no lag time is called ______________.
5. A measure that indicated the project is longer than the amount of time allowed is called ______________________.
6. Identifying the time of tasks, start, finish, slack, and critical path is called ________________.
7. The term used to define the time, people, and materials used in a project is ________________.
8. A graphic display of a project in parallel or time sequence is called ____________________.
9. The difference between the available time and task duration is called ______________________.
10. The fixed cost of supplies used in a project is called ____________________________.

OBJECTIVE 16.3: Identify applications in which project-management software can be used.

Test Item 016-16.3-01

INSTRUCTIONS TO STUDENTS: Place an X beside the statements which describe a project-management software application in the blank provided.

_____ 1. Project-management software can be used in any project that uses, time, money, and people.

_____ 2. Project-management software can be used to plan a remodeling project of a kitchen.

_____ 3. Project-management software can be used to schedule a publishing deadline.

_____ 4. Project-management software can be used to create a database for a school project.

_____ 5. Project-management software can be used to prepare management reports on the progress and results of a project.

_____ 6. Project-management software can be used to created flow charts, line charts of a given project.

_____ 7. Project-management software can be used to help management perform and plan more efficiently.

_____ 8. Project-management software can be used to create and edit an employee manual.

_____ 9. Project-management software can be used to plan projects that are not relevant to each other.

_____ 10. Project-management software can be used to plan banquets, convention shows, and even a wedding.

Test Item 016-16.3-02

INSTRUCTIONS TO STUDENTS: List below five (5) business applications in which project-management software could be used.

1. ______________________ 2. ______________________

3. ______________________ 4. ______________________

5. ______________________

414

OBJECTIVE 16.4: Demonstrate various tasks using project-management software.

Test Item 016-16.4-01

INSTRUCTIONS TO STUDENTS: Create a project plan for hiring a new employee, using the planning information below:

1. Calendar: Standard
2. Planned project start: May 1, 19--
3. Project goal: Hire
4. Project tasks are sequential

Task	**Duration**
Run job advertisement in paper	3 days
Screen resumes	5 days
Interview potential job candidates	5 days
Meet with choice candidate and make offer	1 day
Start date for new employee	12 days

5. Target project finish date: June 1, 19--
6. Resource: One recruiter working 8 hours per day
7. When complete, this problem will have a negative skack problem. Resolve it.
8. Define critical path within this project.
9. Print final schedule using available options.

Source: **Harvard Project Manager Workbook** for Version 3.0 Software Publishing Corporation, Mountain View, California.

Test Item 016-16.4-02

INSTRUCTIONS TO STUDENTS: Using the information given below develop a project plan using the available software to develop a plan to complete the project.

Project: Create a plan that will show resources, time, start and finish dates to develop a schedule creating a training program to teach 20 employees Lotus.

Materials/Resources: Classroom-5 personal computers, 1 instructor, 20 instructional booklets need to be ordered or created.

Class Duration: 20 student/teacher contact hours

Time: 20 days in the month of May Training is to be completed by the end of May.

Critical Path: Identify any critical path that might exist.

Negative Slack: Identify and correct any negative slack.

Additional Info: You may see the need for other resources or other materials, therefore; feel free to add them.

TEST ITEM KEYS
FOR
PROJECT MANAGEMENT

Test Item 016-16.1-01

1.
2.
3. X
4.
5. X
6. X
7. X
8.
9. X
10. X
11. X
12.

Test Item 016-16.1-02

The answers to this test item may vary depending on teaching materials.

Five advantages of using project management.

1. Saves time by being more efficient than paper and pencil process

2. Easier to edit and make major changes as needed

3. Reduces waste in time and materials

4. Various formats available for presentation of plan

5. Almost limited application for any project using materials, people and time

Test Item 016-16.2-01

1. E
2. A
3. B
4. F
5. D
6. L
7. I
8. J
9. H
10. G

Test Item 016-16.2-02

1. Critical path
2. Gantt chart
3. Milestone
4. Negative slack
5. Project
6. Overhead
7. PERT chart
8. Slack
9. Resources
10. Scheduling

Test Item 016-16.3-01

1. X
2. X
3. X
4.
5. X
6. X
7. X
8.
9.
10. X

Test Item 016-16.3-02

The answers to this test item may vary according to the materials and software being taught.

Five applications for project management software.

1. Create Gantt charts
2. Create a project to redo a kitchen
3. Create a project to plan the stages of putting on a play
4. Create Pert charts
5. Create a long or short term plan for any project

Test Item 016-16.4-01

Check List for Project Plan to Hire New Employee

_____ 1. Correct start date properly entered.

_____ 2. Correct task and durations entered.

_____ 3. Program features correctly used.

_____ 4. Critical path recognized.

_____ 5. Negative slack time resolved.

_____ 6. Final Report printed in program using program options.

Test Item 016-16.4-02

Checklist for Project Plan to Create a Training Schedule for Employees.

_____ 1. Correct start date properly entered.

_____ 2. Correct task and durations entered.

_____ 3. Program features correctly used.

_____ 4. Critical path recognized.

_____ 5. Negative slack time resolved.

_____ 6. Final Report printed in program using program options.

PARTIAL LISTING OF REFERENCES
FOR
PROJECT MANAGEMENT

TEXTBOOKS

Applications Using the Personal Computer. Groneman and Owen. South-Western Publishing, 5101 Madison Road, Cincinnati, OH 45227. 1-800-543-7972. 1988.

Harvard Project Manager 3.0: An Introductory Workshop Participant's Workbook. Software Publishing Corporation, Mountain View, CA 1988.

SOFTWARE

IBM Project Assistant. IBM, Systems Products Division, PO Box 1328, Boca Raton, FL 33432.

Harvard Project Manager 3.0. Software Publishing Corporation, 1901 Landings Drive, Mountain View, CA.

Harvard Project Manager Training Tutorial. Individual Software, Inc., 1163-I Chess Drive, Foster City, CA 94404. 1-800-331-3313.

MicroSoft Project. Microsoft, Corporation. 16011 North East 36th Way, PO Box 97017, Redmond, WA 98073-9717.

PacMicro. AGS Management System, 800 First Avenue, King of Prussia, PA 19406. 1-215-265-1550.

Quick Schedule Plus. Power Up, Inc. PO Box 7600, San Manteo, CA 94403. 1-800-851-2917.

Super Project 3.0. Computer Associates. 1240 McKay Drive, San Jose, CA 95131. 1-800-531-5236.

Timeline 3.0. Symantec Corporation. 10201 Torre Avenue, Cupertino, CA 85014.

Workbench. Applied Business Technologies, 361 Broadway, New York, NY 10013.

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MANAGEMENT SUPPORT

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COMPETENCIES

FOR MANAGEMENT SUPPORT

COMPETENCY GOAL 17: The learner will use management-support software.

COMPETENCY OBJECTIVES

17.1 Identify the advantages of management-support software.

17.2 Recognize management-support terms.

17.3 Identify applications in which management-support software can be used.

17.4 Demonstrate various tasks using management-support software.

STUDENT ACTIVITIES
FOR
MANAGEMENT SUPPORT

Orientation to Management-Support Software	**Planning Notes**
1. Discuss the purpose of management-support software.	TM1
2. Discuss terminology as it relates to management-support software.	
3. List several advantages of using management-support software.	
4. List several business applications where management-support software can be of benefit to managers.	
5. Discuss management-support software specifications.	TM2
Understanding Different Types of Management-Support Software	
1. List several available management-support software packages.	TM3, TM4
2. Discuss calendar programs.	
3. Discuss window programs.	TM5, TM6, TM7
4. Discuss time-management programs.	
Using Management-Support Software	
1. Load a management-support software package.	
2. Observe the available options.	
3. Perform available tasks.	

MANAGEMENT-SUPPORT SOFTWARE

PURPOSE

To assist the user in

- * better organization and access of files
- * faster and more efficient access of progams
- * better planning and scheduling of time
- * enhancing existing equipment features

MANAGEMENT-SUPPORT SOFTWARE SPECIFICATIONS

Many Management-Support Programs are used in conjunction with other software programs and, therefore; run background (RAM) while other software is being used. Due to this configuration, the user needs to be knowledgeable of his/her system prior to puchasing software. Many management-support programs will require one or more of the following:

* 512K or more memory

* Color screen

* Hard/fixed disk drive

TYPES OF MANAGEMENT-SUPPORT SOFTWARE

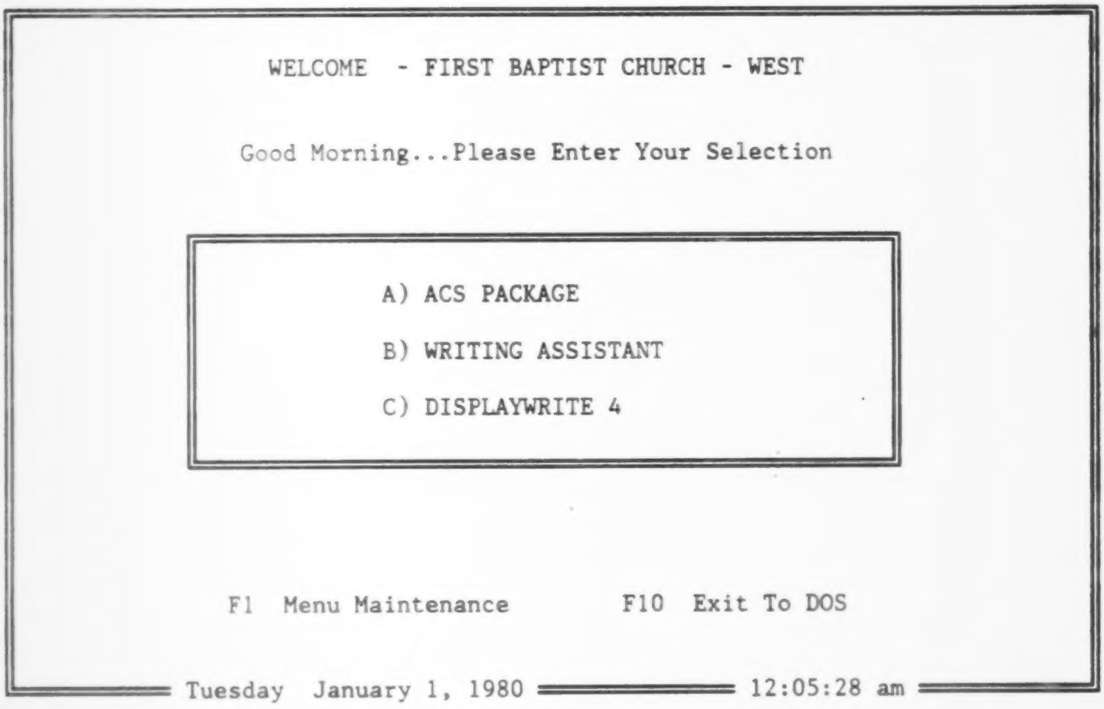
- **Calendar Programs**
- **Note Pad Programs**
- **Window Programs**
- **Auto Phone Dialer Programs**
- **Address Book / File Card Programs**
- **Calculator Programs**
- **Reminder / Alarm Programs**
- **Appointment / Scheduling Programs**
- **Hard Drive / File Manager Programs**

MANAGEMENT SUPPORT

Hard Drive Organizer Sample
Program Director
Power-Up Software
Channelmark Corporation

PROGRAM FEATURES:

- Autoexec access of programs
- Dos Exit
- Visual screen time and date
- Custom menus - 16 different menus



```
              WELCOME  - FIRST BAPTIST CHURCH - WEST

          Good Morning...Please Enter Your Selection

                    A) ACS PACKAGE

                    B) WRITING ASSISTANT

                    C) DISPLAYWRITE 4

          F1  Menu Maintenance        F10  Exit To DOS

 ====== Tuesday  January 1, 1980 ========== 12:05:28 am ======
```

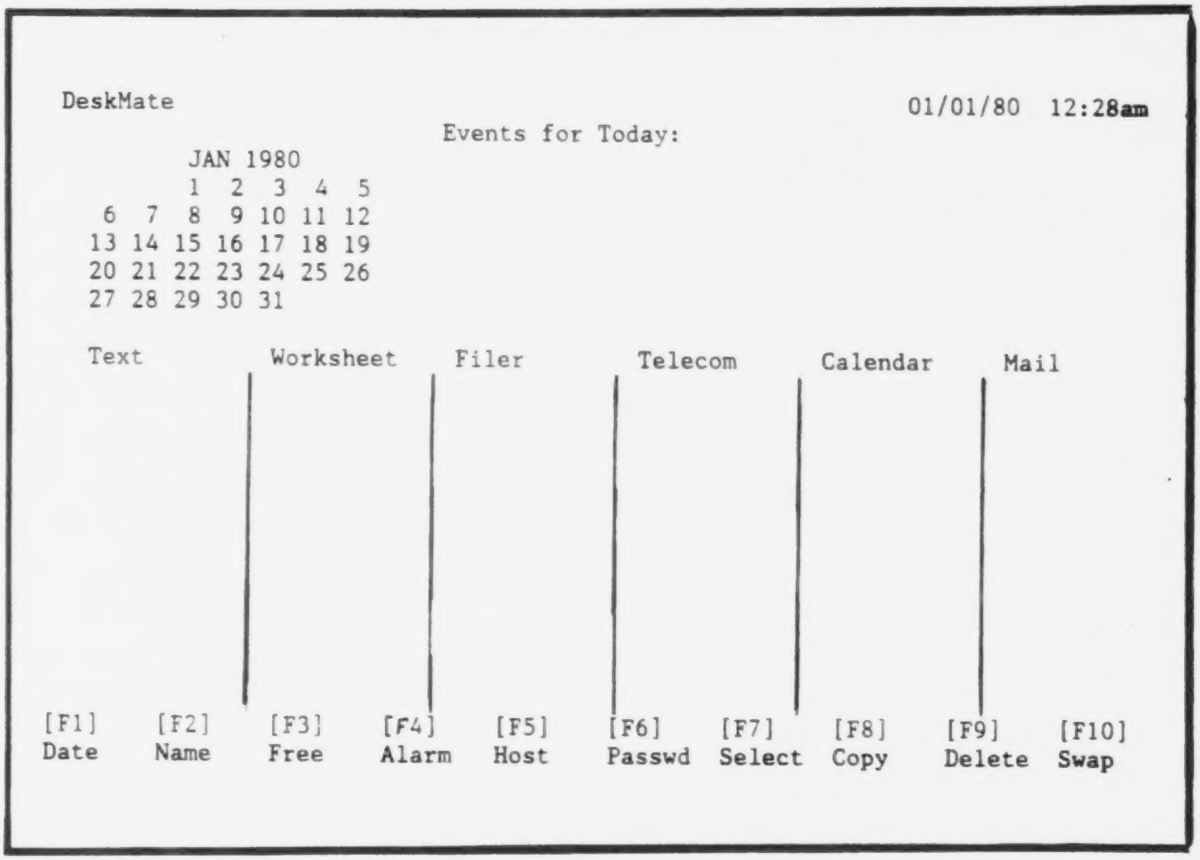
Source:
Screen Print: Program Director
Channelmarker Corportation
PO Box 7600
San Mateo, CA 94403

MANAGEMENT SUPPORT

Window Program Sample
Deskmate II
Tandy Corporation

PROGRAM FEATURES:

- Autoexec access of files
- Calendar program
- Visual screen time and date
- Note Pad - Alarm - Communications



```
DeskMate                                           01/01/80  12:28am
                              Events for Today:
          JAN 1980
          1  2  3  4  5
 6  7  8  9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30 31

 Text      Worksheet  Filer     Telecom    Calendar   Mail

[F1]   [F2]   [F3]   [F4]   [F5]   [F6]    [F7]    [F8]  [F9]    [F10]
Date   Name   Free   Alarm  Host   Passwd  Select  Copy  Delete  Swap
```

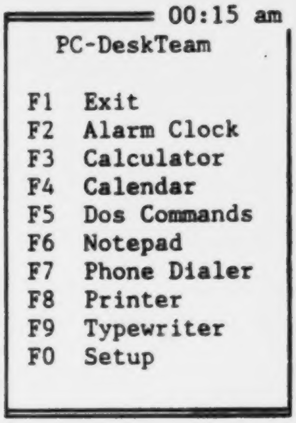
Source:
Screen Print: Deskmate II
Tandy/Radio Shack Corporation
PO Box 2910
Fort Worth, TX 76113

MANAGEMENT SUPPORT

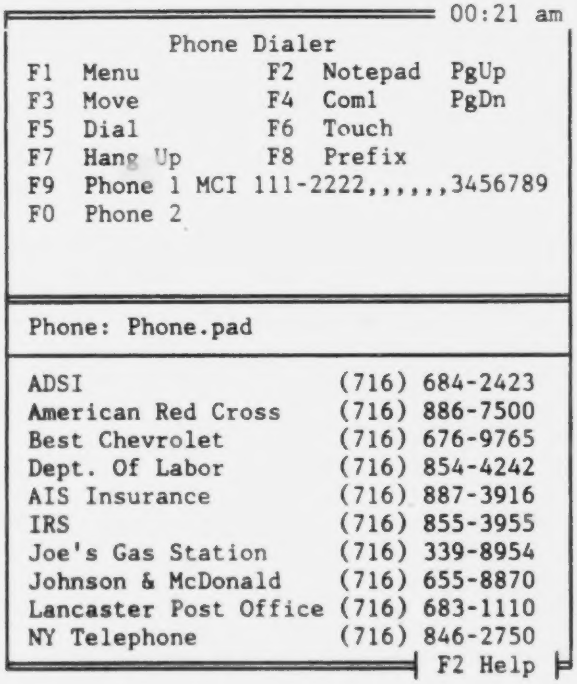
Window Program Sample
DeskTeam 1.04
Alternative Decision Software, Inc.

PROGRAM FEATURES:

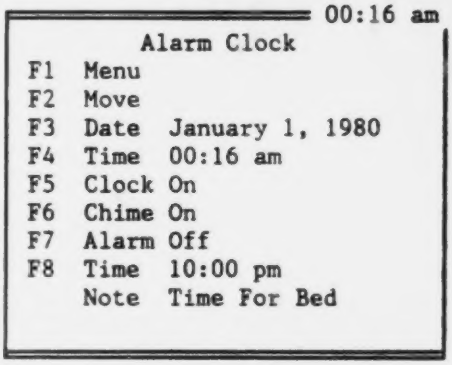
- Main Menu with pop-up selections
- Visual screen time/date - Alarm Program
- Calculator - Phone Dialer - Phone Pad



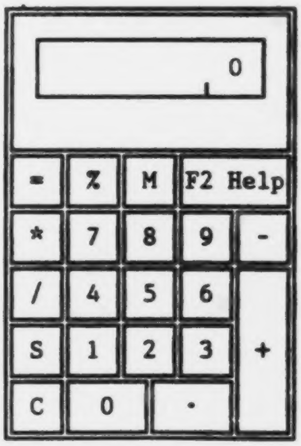
```
00:15 am
PC-DeskTeam

F1  Exit
F2  Alarm Clock
F3  Calculator
F4  Calendar
F5  Dos Commands
F6  Notepad
F7  Phone Dialer
F8  Printer
F9  Typewriter
F0  Setup
```



```
00:21 am
              Phone Dialer
F1  Menu              F2  Notepad   PgUp
F3  Move              F4  Com1      PgDn
F5  Dial              F6  Touch
F7  Hang Up           F8  Prefix
F9  Phone 1 MCI 111-2222,,,,,,3456789
F0  Phone 2

Phone: Phone.pad

ADSI                    (716) 684-2423
American Red Cross      (716) 886-7500
Best Chevrolet          (716) 676-9765
Dept. Of Labor          (716) 854-4242
AIS Insurance           (716) 887-3916
IRS                     (716) 855-3955
Joe's Gas Station       (716) 339-8954
Johnson & McDonald      (716) 655-8870
Lancaster Post Office   (716) 683-1110
NY Telephone            (716) 846-2750
                                F2 Help
```



```
00:16 am
           Alarm Clock
F1  Menu
F2  Move
F3  Date  January 1, 1980
F4  Time  00:16 am
F5  Clock On
F6  Chime On
F7  Alarm Off
F8  Time  10:00 pm
    Note  Time For Bed
```



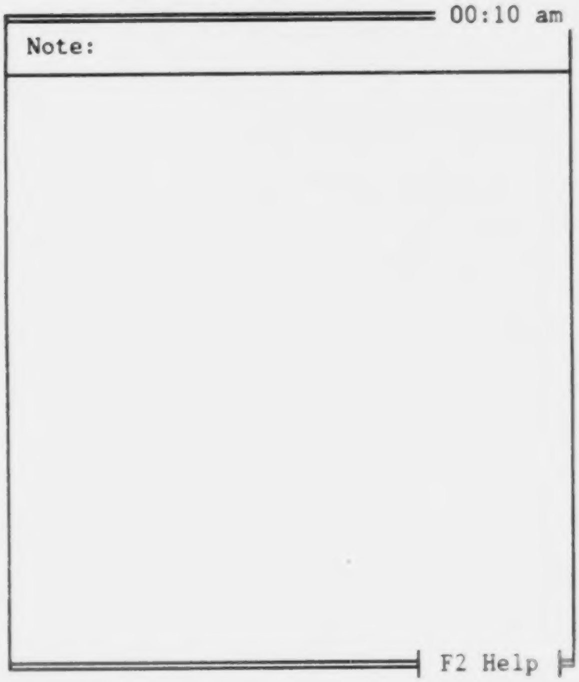
Source:
Screen Print: DeskTeam 1.04
Alternative Decision Software, Inc
PO Box 307
Lancaster, NY 140863
Shareware Access

MANAGEMENT SUPPORT

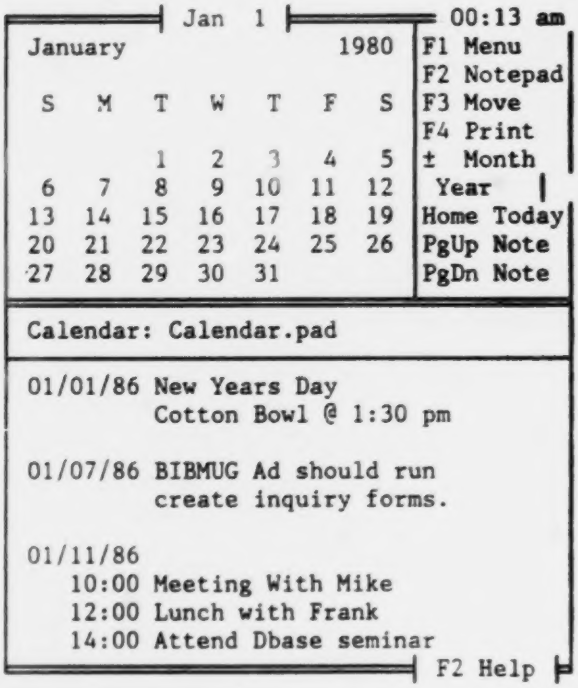
Window Program Sample
DeskTeam 1.04
Alternative Decision Software, Inc.

PROGRAM FEATURES CONTINUED

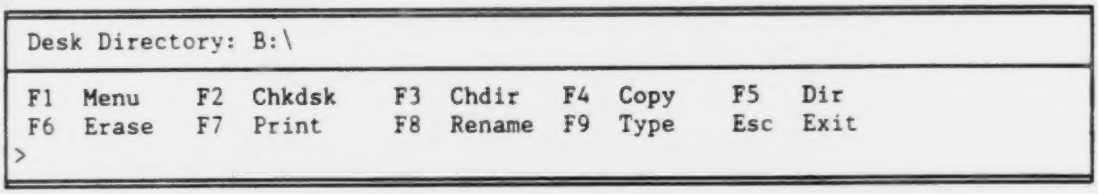
- Note Pad
- Calendar and Calendar Pad
- On Screen Dos Commands



```
                              00:10 am
Note:




                            F2 Help
```



```
          Jan  1          00:13 am
January                  1980  F1 Menu
                               F2 Notepad
 S   M   T   W   T   F   S     F3 Move
                               F4 Print
         1   2   3   4   5     ±  Month
 6   7   8   9  10  11  12      Year
13  14  15  16  17  18  19     Home Today
20  21  22  23  24  25  26     PgUp Note
27  28  29  30  31             PgDn Note
Calendar: Calendar.pad
01/01/86 New Years Day
         Cotton Bowl @ 1:30 pm

01/07/86 BIBMUG Ad should run
         create inquiry forms.

01/11/86
   10:00 Meeting With Mike
   12:00 Lunch with Frank
   14:00 Attend Dbase seminar
                               F2 Help
```



```
Desk Directory: B:\

F1  Menu    F2  Chkdsk    F3  Chdir    F4  Copy    F5   Dir
F6  Erase   F7  Print     F8  Rename   F9  Type    Esc  Exit
>
```

Source:
Screen Print: DeskTeam 1.04
Alternative Decision Software, Inc
PO Box 307
Lancaster, NY 140863
Shareware Access

EVALUATION MEASURES

FOR
MANAGEMENT SUPPORT

COMPETENCY GOAL 17: The learner will use management-support software.

OBJECTIVE 17.1: Identify the advantages of management-support software.

Test Item 017-17.1-01

INSTRUCTIONS TO STUDENTS: Place an X in the blank provided beside those statements that adequately describe the advantages of management-support software.

_____ 1. Management-support software can assist the user in better management of time.

_____ 2. Management-support software is a new and innovative form of word-processing software.

_____ 3. Management-support software can assist the user in enhancing the available equipment.

_____ 4. Management-support software can assist the user in planning a long-term project.

_____ 5. Management-support software can assist the user in acquiring a greater efficiency in the use of time.

_____ 6. Management-support software can assist the user in scheduling and remembering appointments.

_____ 7. Management-support software can assist the user in maintaining files, files space, and file allocation for greater efficiency.

_____ 8. Management-support software can allow the user to produce schedules and appointments in graphic display.

_____ 9. Management-support software can assist the user to access software faster and more efficiently.

_____ 10. Management-support software can allow the user to set alarms, reminder screen, or access a calculator.

Test Item 017-17.1-02

INSTRUCTIONS TO STUDENTS: List five (5) advantages of using management-support software.

1. ______________________________ 4. ______________________________

2. ______________________________ 5. ______________________________

3. ______________________________

OBJECTIVE 17.2: Recognize management-support terms.

Test Item 017-17.1-01

INSTRUCTIONS TO STUDENTS: Match the terms listed in the left column with the correct description given in the list on the right. Write the corresponding letter in the blank provided.

_____ 1. Calendaring

_____ 2. Management-support software

_____ 3. Windows

_____ 4. Note pad

_____ 5. Address/file card

_____ 6. Alarm program

_____ 7. Calculator program

_____ 8. Auto-batch program

_____ 9. Auto dialer

_____ 10. File manager

A. a program that divides the screen into two or more areas

B. a program that will allow printer fonts to be changed

C. a program that can be access to type notes, list or reminders

D. a program that allows the user to keep phone numbers, addresses or list readily accessible

E. software that assists the user in better management of time and equipment for greater efficiency

F. a program that allows the user to keep daily or monthly appointments or notations of special events

G. a program that can be accessed to do mathematical operations within an active program

H. a program that will automatically dial a number from a phone directory if communications is present

I. a program that assists in managing hard/floppy files with erase, copy, search, retrieve, etc. features

J. a program that will sound a beeper when clock has been set or display a reminder message across the screen

K. a program that accesses operating system commands

L. program that assists in retrieving files and programs efficiently on a hard disk

Test Item 017-17.2-02

INSTRUCTIONS TO STUDENTS: Complete the sentences below by writing in the blank provided the term(s) which best completes the statement.

1. A program that divides the screen into two or more areas is called a ____________________ .
2. A program that is assessed to type notes, list or reminders is called a ____________________ .
3. A program that allows the user to keep phone numbers, addresses or list is called a ________________ .
4. A program that assists the user in better management of time and equipment for greater efficiency is called a ________________________ .
5. A program that allows the user to keep daily or monthly appointments or notations of special events is called a ____________________ .
6. A program that is accessed to do mathematical operations within an active program is called a ______________________ .
7. A program that automatically dials a number from a phone directory if communications is present is called a ____________________ .
8. A program that assists in managing hard/floppy files with erase, copy, search, retrieve, etc. features is called a ____________________ .
9. A program that sounds a beeper when clock has been set or displays a reminder on the screen of appointments is called a ____________________ .
10. A program that allows auto batch retrieval of programs/files stored on a hard drive is called a ______________________ .

OBJECTIVE 17.3: Identify applications in which management-support software can be used.

Test Item 017-17.3-01

INSTRUCTIONS TO STUDENTS: Place an X in the blank provided beside those statements that adequately describe applications of management-support software.

_____ 1. Set an alarm to remind user of an appointment next Monday at 10:00 a.m.

_____ 2. Create a calendar for next month showing birthdays, meetings and appointments.

_____ 3. Create a work schedule for managing the production of a play.

_____ 4. Create a phone directory of common numbers frequently accessed.

_____ 5. Automatically dial a particular phone number.

_____ 6. Create an employee manual with headline and gutter margins.

_____ 7. Access a calculator to add, subtract, multiply, or divide numbers immediately on the screen.

_____ 8. Send a message across the screen to remind user of a doctor's appointment.

_____ 9. Access system commands without exiting to the operating system.

_____ 10. Enter notes or "things to do" immediately as remembered without leaving the existing program.

Test Item 017-17.3-02

INSTRUCTIONS TO STUDENTS: List five (5) applications of management-support software.

1. ______________________ 4. ______________________

2. ______________________ 5. ______________________

3. ______________________

Test Item 017-17.3-03

INSTRUCTIONS TO STUDENTS: Describe how the following programs could be used to support a manager of a business.

1. Clock or Alarm Program
2. Note Pad Program
3. Calendar Program
4. Calculator Program
5. Hard-Drive Organizer Program

OBJECTIVE 17.4: Demonstrate various tasks using management-support software.

Test Item 017-17.4-01

INSTRUCTIONS TO STUDENTS: Demonstrate to the instructor the proper procedure(s) used to start up and access the available options of a given management-support software package.

1. Insert the management-support software at the appropriate time and load with proper command.
2. Activate the program using the proper command keys.
3. Successfully access, use, and exit the available options such as:
   a. calendar
   b. note pad
   c. calculator
   d. set reminder/alarm
   e. file management tools
   f. change windows
   g. directory/list/database

Test Item 017-17.4-02

INSTRUCTIONS TO STUDENTS: Explain the steps used in completing the following tasks using a selected piece of management-support software.

1. When is the available management-support software loaded?
2. What is the command or procedure to load the available management-support software?
3. What are the available options of the current software?
4. What keys or procedures are used to access the available options of the management-support software?

TEST ITEM KEYS
FOR
MANAGEMENT SUPPORT

Test Item 017-17.1-01

1. X
2.
3. X
4.
5. X
6. X
7. X
8.
9. X
10. X

Test Item 017-17.1-02

Possible answers include:

1. better management of time
2. better management of files
3. better mangement of program access
4. better organization of time
5. faster production of materials
6. better use of equipment

Test Item 017-17.2-01

1. F
2. E
3. A
4. C
5. D
6. J
7. G
8. L
9. H
10. I

Test Item 017-17.2-02

1. Window
2. Note pad
3. Address/file card
4. Management support
5. Calendar
6. Calculator
7. Auto phone dialer
8. File manager
9. Alarm
10. Hard-drive organizer

Test Item 017-17.3-01

1. X
2. X
3.
4. X
5. X
6.
7. X
8. X
9. X
10. X

Test Item 017-17.3-02

Answers may vary according to management-support software being taught. Possible answers include:

1. Schedule meetings
2. Set alarm for reminder of meetings and appointments
3. Take immediate notes on ideas
4. Add, subtract, multiply or divide numbers
5. Keep list of clients, addresses phone numbers
6. Set clock and make visible on screen
7. View files
8. Access a needed software program

Test Item 017-17.3-03

Answers may vary. Possible answers include:

1. Set alarm to sound when to remind user of an important meeting or to leave for the airport for an important trip.

2. Type in notes as they come to mind or while on the phone. Notes are less likely to become lost or misplaced.

3. Keep important date of meetings, birthdays, and appointments on a weekly, monthly and yearly basis which is accessible immediately each day all day on the screen.

4. Use the calculator to add sales figures while doing a spreadsheet or balancing a budget.

5. Set up hard drive so that programs can be accessed at the push of a button without having to change directories and type in command words.

Test Item 017-17.4-01

Checklist for Demonstrating Proper Load and Access of a Given Management-Support Software.

_____ 1. Loaded management-support software at the appropriate time and place.

_____ 2. Activated the management-support software package.

_____ 3. Used the proper command keys.

_____ 4. Accessed, used, and exited the following available options, where applicable.

    _____ A. calendar
    _____ B. note pad
    _____ C. calculator
    _____ D. set reminder/alarm
    _____ E. file management tools
    _____ F. change windows

Test Item 017-17.4-02

The answers to this test item will vary according to the software package(s) being used.

PARTIAL LISTING OF REFERENCES
FOR
MANAGEMENT SUPPORT

TEXTBOOKS

Groneman and Owen. **Applications Using The Personal Computer.** South-Western Publishing Company, 5101 Madison Road, Cincinnati, OH 45227. 1-800-543-7972. 1988.

SOFTWARE

Action Planner Plus. Power Up, Channelmark Corporation, PO Box 7600, San Mateo, CA 94403. 1-800-851-2917.

Address Book Plus. Power Up, Channelmark Corporation, PO Box 7600, San Mateo, CA 94403. 1-800-851-2917.

Calendar Creater Plus. Power Up, Channelmark Corporation, PO Box 7600, San Mateo, CA 94403. 1-800-851-2917.

DeskMate. Tandy Corporation, PO Box 2910, Fort Worth, TX 76111.

Find and File. Power Up, Channelmark Corporation, PO Box 7600, San Mateo, CA 94403. 1-800-851-2917.

La Menu. Bartel Computer System, Inc., 1257 Fort Union Blvd., Suite 160, Midvale, UT 84047. 1-801-566-5544

MicroSoft Windows. Microsoft Corporation. 16011 North East 36th Way, PO Box 97017, Redmond, WA 98073-9717.

Program Director. Power Up, Channelmark Corporation, PO Box 7600, San Mateo, CA 94403. 1-800-851-2917.

Sidekick Plus. Borland International. 4585 Scotts Valley Drive, Scotts Valley, CA 95066. 1-800-543-7543.

The Reminder System. Compbell Services, Inc. 21700 North West Highway, Suite 1070, Southfield, MI 48075. 1-800-521-9314.

Word Perfect Executive. Word Perfect Corporation. 1555 North Technology Way. Orem, UT 84057. 1-801-225-5000.

TABLE OF CONTENTS
FOR
DESKTOP PUBLISHING

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COMPETENCIES
FOR
DESKTOP PUBLISHING

COMPETENCY GOAL 18: The learner will use a desktop-publishing program.

COMPETENCY OBJECTIVES

18.1 Identify hardware components and software for desktop publishing.

18.2 Summarize the advantages of using a desktop publishing program.

18.3 Recognize desktop-publishing terms.

18.4 Describe the steps of the desktop-publishing cycle.

18.5 Identify applications in which desktop-publishing programs can be used.

18.6 Identify the principles and techniques of page design.

18.7 Prepare materials to be used in a desktop publication.

18.8 Create a text file for desktop publication using word-processing software.

18.9 Create graphs and/or images for desktop publication.

18.10 Format page make-up.

18.11 Print a desktop-publishing document.

STUDENT ACTIVITIES
FOR
DESKTOP PUBLISHING

Introduction to Desktop Publishing	Planning Notes
1. Define desktop publishing.	TM1, TM2
2. Discuss the types of software necessary for desktop publishing. Desktop publishing programs currently available Word-processing programs — compatible with DTP programs Graphic programs Clip art collections Utility programs Windows	TM4
3. Discuss the hardware components for a desktop publishing system. Microcomputer Printer Scanner	TM3
4. Identify types of businesses using desktop publishing. Conduct a brief survey of local businesses to determine who is using DTP in the local area.	
5. Discuss the advantages of using desktop publishing.	TM5
6. Discuss the limitations of desktop-publishing programs.	TM7
7. Discuss several applications for which a desktop-publishing program can be used. For illustration, use examples of printed documents which can be produced with desktop-publishing.	TM6

The Desktop Publishing Cycle	
1. Define publishing.	
2. Identify the steps of the publishing cycle. Plan Design Create Content Prepare page make-up Print	TM8
3. Discuss terminology as it relates to desktop publishing.	

	Planning Notes
4. Discuss the factors to be considered in **planning** a publication. What goes into a publication? Who will perform the various tasks? How much time will be required? How much will the publication cost?	TM9
5. Discuss the factors to be considered in **designing** a publication. Purpose Format Illustrations Binding	TM10
6. Discuss the elements of **design.** Headings Subheadings Captions Kickers Jumplines Columns Rules Boxes Shading Typefaces Type Size Text Alignment Kerning Leading	TM11 Through TM15 HO1, HO2, HO3
7. Discuss **content creation.** Text Images Illustrations	
8. Discuss the factors to be considered in page format. Balance (Formal, Informal, Subjective) Dominance Proportion Unity Master Pages Detail Pages	TM17 TM18
9. Discuss the functions of page make-up. Thumbnail Rough Comprehensive Mechanical Dummy	
Orientation to Desktop Publishing Software	
1. Load program and observe the menus and options available.	
2. Use appropriate control function keys or mouse to perform primary operations, such as selecting and cancelling menu options.	

Planning Notes

3. Tour the software. Walk through main menu and submenu options to become acquainted with the organization of the program and its main functions. Use a DTP file that has been prepared on disk for this purpose.
4. Discuss terminology as it relates to the software being used.
5. Close the file.
6. Exit and shut down the equipment.

Using and Defining Special Software Features

1. Define and demonstrate program default features: paper size, format, margins, pre-set tabs, type specifications, (which ever applies to the program being used).
2. Demonstrate printer setup (if applicable).
3. Discuss and demonstrate page set-up as applicable to software. Size of page, orientation of page, margins, double-sided or facing pages, number of pages.
4. Discuss and demonstrate special features of software, such as type specifications, leading, alignment, number of columns, etc.
5. Discuss and demonstrate the use of special editing features: adding or deleting text, changing type style or size, adjusting text width.
6. Using the text-entry mode of the DTP program, type the following:
    Name
    Street Address
    City, State, Zip
7. Practice using the special features of the program:
    Change the type style and size
    Change the alignment of the text
    Insert telephone number after name
    Delete street address
8. Exit and shut down the equipment.

Creating Text Files for Desktop Publications

1. Discuss the text feature of DTP programs.
2. Identify word processing software for creating text files for a desktop publication.
3. Discuss the advantages of using a word processing program for creating text files.

Planning Notes

4. Using a word processing program, create a text file for a desktop publication.
5. Name the text file and save it to a disk.
6. Using DTP software, use appropriate commands and/or options to define a new file to the program.
7. Retrieve the text file and "place" it in a desktop publication file.
8. Print the file.

Adding Graphics to a Desktop Publication

1. Discuss the use of graphics to enhance the appearance and content of a document
2. Discuss the four groups of graphic resources for desktop publishing.
    a. Scanned images
    b. Business charting and presentation graphics software
    c. Paint and draw programs
    d. Clip art sets
3. Create a graphic file to be used in a desktop publication. Name the file and save it to a disk.
4. Retrieve the graphic file and "place" it in a desktop publication file.
5. Using the text feature of the DTP software add headlines, captions and/or text to the file.
6. Print the file.

TM4

Create a One-Page Flyer

TM22

1. Working individually, plan a simple one-page flyer. Suggestions: Announcement of special school activities, such as, magazine sales, student government election, club activity, vocational honor society, or special recognition of individual students or teams.
2. Prepare disk for files.
3. Using graphics program, clipart, or scanner create and edit graphics and/or images for the flyer.
4. Save the file to a disk.
5. Using DTP software, use appropriate commands and/or options to define a new file to the program.
6. Retrieve the graphic file and place it in the DTP file.

Planning Notes

7. Position, resize, or crop (trim) it as necessary.
8. Using the text features of the DTP program create headlines, text and/or captions to the file.
9. Save the file to a disk.
10. Print the flyer.

Create a Brochure

TM23A & B

1. Working individually or with a small group. Plan a single sheet brochure. Print on both sides and fold. The brochure can be folded in the middle or folded into thirds. (Note: All of the following steps may not apply-depending on the brochure design.)
2. Prepare a disk for the files.
3. Using a graphics program or other resource, create the graphic or image (if required) for the brochure.
4. Save the graphic file to a disk.
5. Using a word processing program, create and edit the text file (if required) for the brochure.
6. Save the text file to a disk.
7. Using DTP software, use appropriate commands and/or options to define a new file to the program.
8. Using the page formatting features of the DTP program, establish the page payout.
9. Retrieve and "place" the graphic file (if applicable). Adjust if necessary.
10. Retrieve and "place" the text file (if applicable).
11. Using the text feature of the DTP program, add headings, captions, and text as required.
12. Edit and adjust as necessary.
13. Save the file to a disk.
14. Print the brochure and fold it as designed.

NEWSLETTERS: The Most Common Application of Desktop Publishing

1. Define a newsletter.
2. Identify types of businesses that publish newsletters.
3. Discuss the purposes of newsletters.
4. Discuss the advantages of using DTP for newsletters.
5. Collect samples of newsletters from a variety of businesses.
6. Discuss the steps in producing a newsletter. (planning, designing, page format, content creation, and printing.)
7. Discuss good/poor newsletter formats.

Produce a Newsletter

1. Working individually or with a small group, plan a newsletter that is of interest to you. Include charts, graphs, clip art, or scanned images to enhance the document. (NOTE: If working with a group, identify the tasks to be completed by each member.)
2. Assemble the materials to be included in the newsletter.
3. Design the newsletter, using two or three columns.
4. Using a word processing program create and edit the text files for the newsletter. Save the files to a disk.
5. Using a graphics program, clip art or scanner, create and edit the graphics and/or images for the newsletter. Save the files to a disk.
6. Using a DTP software, use appropriate commands and or options to define a new file to the program.
7. Using the page formatting features of the program, establish the columns, margins, etc.
8. Retrieve and "place" the graphic file(s). Edit and adjust as necessary.
9. Retrieve and "place"the text file(s).
10. Edit and adjust the text as necessary.
11. Add the final design elements, headings, captions, etc.
12. Save the completed file to a disk.
13. Print the newsletter.

Planning Notes

Use samples of newsletter from various types of businesses.

Using Templates in Desktop Publishing

1. Discuss master page(s)
2. Define electronic templates.
3. Discuss the advantages of using an electronic template.
4. Identify applications for which templates can be used.
5. Identify sources of predesigned templates which are compatible with software being used.
6. Demonstrate the use of a template.
7. Design a template for a newsletter or other publication.
8. Using DTP software, use appropriate commands and/or options to create a template file.
9. Name the template and save it to a disk.

Planning Notes

TM19, 20, 21

Desktop Publishing:

Designing, laying out, editing and producing a publication electronically, using a personal computer, word-processing and graphics software, and a desktop publishing program.

FUNCTION OF DESKTOP PUBLISHING SYSTEM

FULL WYSIWYG

MULTIPLE TYPE FONTS AND SIZES

INTEGRATION OF IMAGES
- GRAPHICS
- LINE DRAWINGS
- FREEHAND DRAWING
- SCANNED IMAGES

PAGE LAYOUT
- MULTIPLE COLUMNS
- MULTI-COLUMN HEADERS
- COMPLEX HEADERS AND FOOTERS

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REQUIREMENTS FOR DESKTOP PUBLISHING
(Partial Listing)

MICROCOMPUTER
- IBM PS/2 Model 30
- APPLE-MACINTOSH PLUS
- XEROX 6085 WORKSTATION
- TANDY
  - Minimum of 640K of RAM with hard drive

PRINTER
- IBM Personal Pageprinter 3812
- Apple LaserWriter
- HP Laser Jet
- Xerox 404

SOFTWARE
- Desktop Publishing Package
  - First Publisher
  - PageMaker
  - Ventura
- Word Processing Software with DTP Capabilities
  - Word Perfect
  - Microsoft Word

TM4

GRAPHIC RESOURCES FOR DESKTOP PUBLISHING

Scanned images

Presentation graphics software

Paint and draw programs

Clip Art sets

ADVANTAGES OF DESKTOP PUBLISHING

Reduced cost of quality publications.

The ability to produce publications in-house.

In-house control of confidential information.

Integration of text, images, and data from their original sources without re-entering them.

APPLICATIONS FOR DESKTOP PUBLISHING

NEWSLETTERS

BROCHURES

PROPOSALS

REPORTS

VISUALS

FORMS

ADVERTISEMENTS

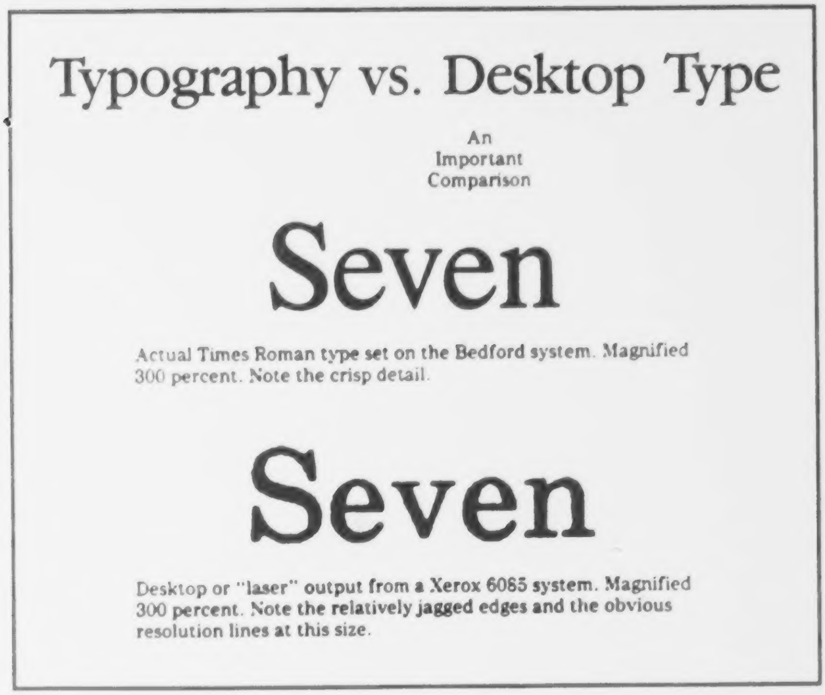
CONFERENCE & SEMINAR HANDOUTS

TECHNICAL DOCUMENTATION

MANUALS & TRAINING MATERIALS

FIRST DRAFTS OF HIGHER QUALITY

PRINTED MATERIALS



Typography vs. Desktop Type

An
Important
Comparison

Seven

Actual Times Roman type set on the Bedford system. Magnified 300 percent. Note the crisp detail.

Seven

Desktop or "laser" output from a Xerox 6085 system. Magnified 300 percent. Note the relatively jagged edges and the obvious resolution lines at this size.

Source: Image World

TM8

The Publishing Cycle

Planning

Design

Content Creation

Page Makeup

Printing

TM9

PLANNING A PUBLICATION

What goes into a publication?

Who will perform the various tasks?

How much time will be required?

How much will the publication cost?

Designing a Publication

Purpose

Format

Illustrations

Binding

TM11

ELEMENTS OF DESIGN

- HEADINGS
- SUBHEADINGS
- CAPTIONS
- KICKERS
- JUMPLINES
- COLUMNS
- RULES

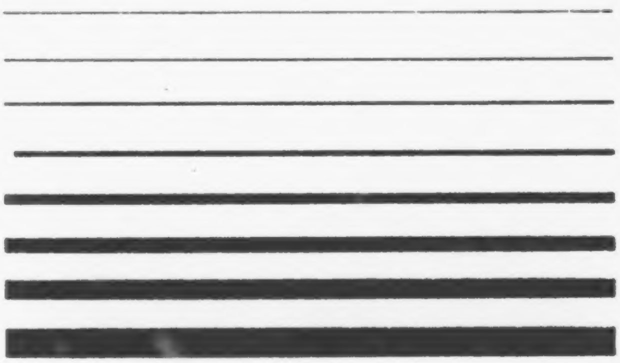
- BOXES
- SHADING
- TYPEFACES
- TYPE SIZE
- TEXT ALIGNMENT
    - LEADING
    - KERNING

DESIGN ELEMENTS

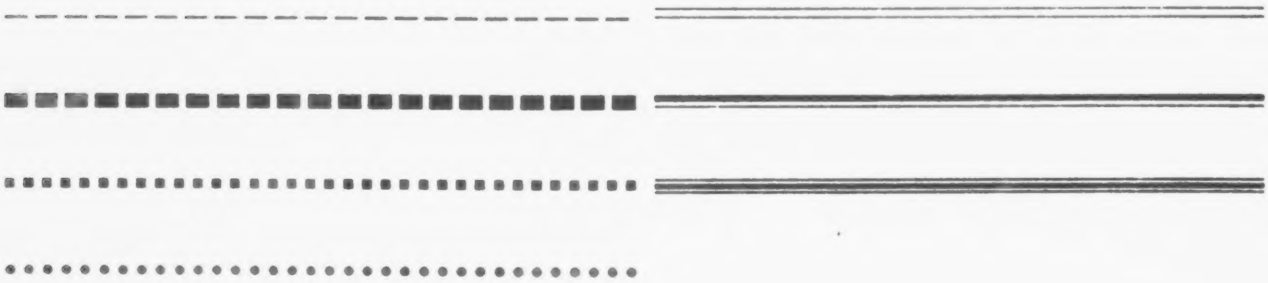
LINES AND RULINGS

Line size is measured and expressed in points

HAIRLINE
.5 POINT
1 POINT
2 POINT
4 POINT
6 POINT
8 POINT
12 POINT



OTHER LINES AVAILABLE ON PAGEMAKER



Sans Serif Style

HELVETICA Helvetica

MODERN Modern

SERIF STYLE

TIMES ROMAN Times Roman

NEW CENTURY SCHOOLBOOK
New Century Schoolbook

TM14

Century Light

Century Light Italic

Century Bold

Century Bold Italic

Century Bold Condensed

Century Bold Extended

Century Textbook

Century Textbook Italic

Century Textbook Bold

An example of a type family The family name of this type is Century. Its series variations are combinations of different weights—light, bold, regular—and different stress—roman and italic.

TM15

EXAMPLES OF LEADING

LEADING -- - (Pronounced "ledding") Vertical spacing between lines.

Leading, like type is measured in points. Example, 10-point type with 12-point leading is described as 10/12. A 10/10 is normal vertical spacing. Increased leading increases the space between lines. (NOTE: This paragraph is 14-point type with AUTO leading.)

This is 10 point Helvetica type with 10-point leading. It is called 10/10. This is normal vertical spacing

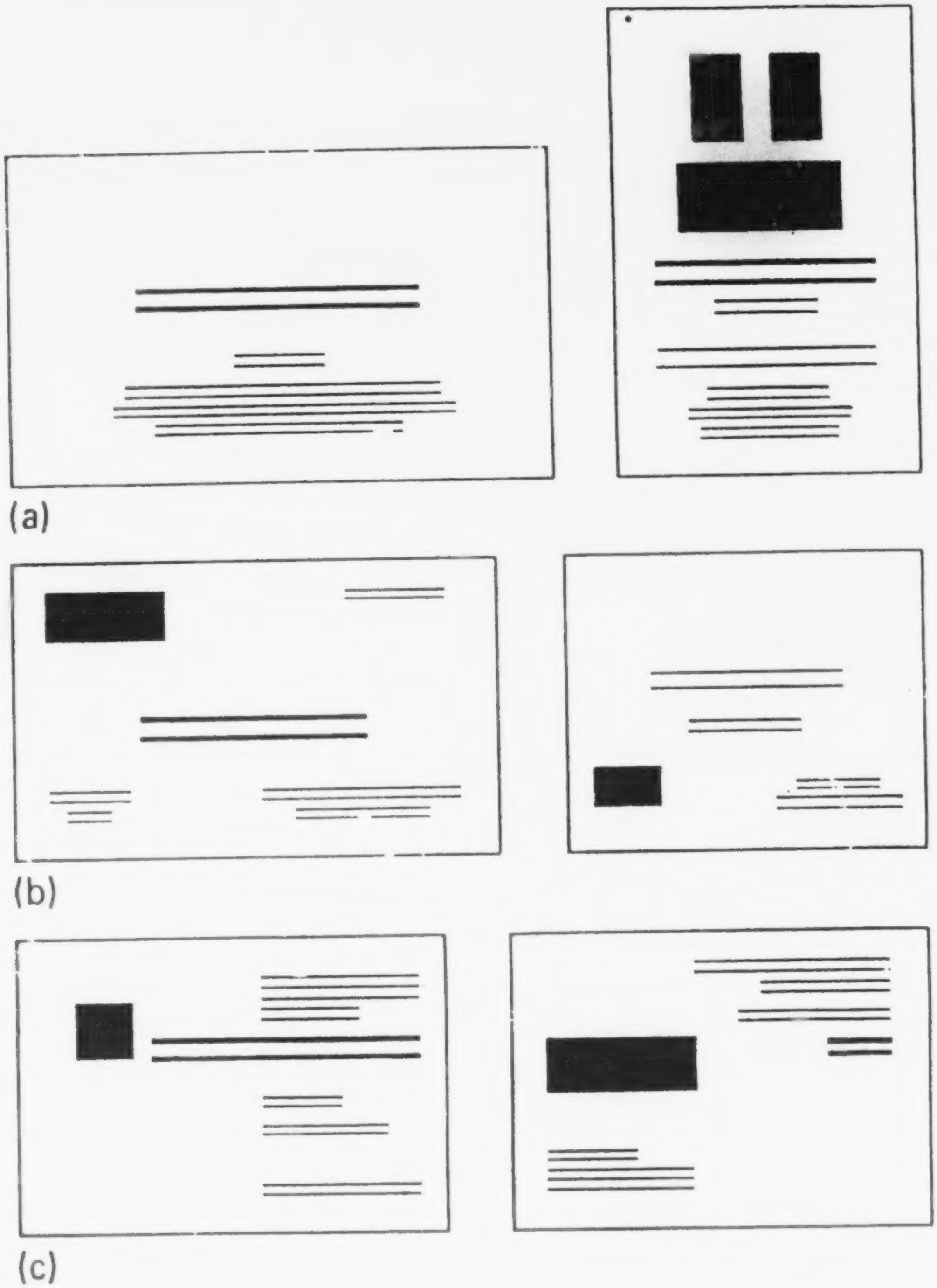
This is 10-point Helvetica type with 12-point leading. It is called 10/12. This is the same as PageMaker provides with AUTO leading.

This is 10-point Helvetical type with 14-point leading. It is called 10/14. Notice the spread that appears between the lines of type. This is an excessive spread.

This is 10-point Helvetica type with 8-point leading. It is called 10/8
Notice that the lines begin to overlap with negative leading.

PAGE FORMAT

- Balance
  - Formal
  - Informal
  - Subjective
- Dominance
- Proportion
- Unity
- Master Pages
- Detail Pages

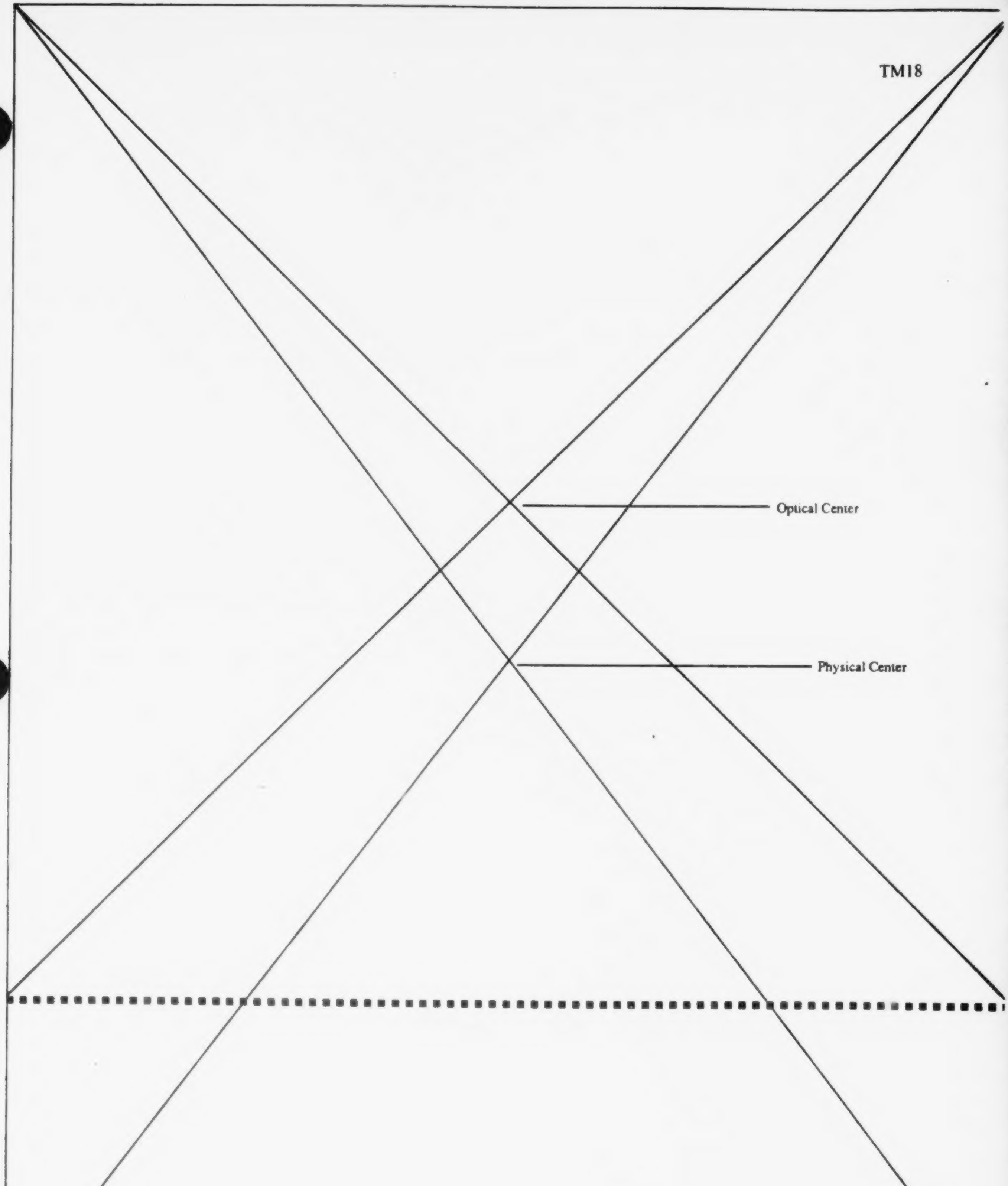


Examples of visual balance

Examples of balance shown here are formal (a), informal (b), and subjective (c).

Source: ***Printing Technology***
Breton Publishers

TM18


Optical Center
Physical Center

The **Newsletter**

Month Year Volume 00 Number 00

Kicker placeholder

Headline placeholder

Caption title placeholder
Caption placeholder

Contents placeholder

Headline placeholder

Source: ***PageMaker Portfolio:***
Designs for Newsletters.
Aldus Corporation.

TM20

The Newsletter

Month Year Volume 00 Number 00

Caption placeholder

Headline placeholder

Subhead placeholder

Byline placeholder

Source: ***PageMaker Portfolio:***
Designs for Newsletters.
Aldus Corporation.

Headline placeholder

Byline placeholder

Contents placeholder

PLACEHOLDER

Placeholder

Kicker placeholder

Headline placeholder

Caption placeholder

Source: ***PageMaker Portfolio:***
Designs for Newsletters.
Aldus Corporation.

CREATIVE DESIGNS...

Creative Designs specializes in the design, production, and promotion, of all forms of printed material.

Creative Designs uses the latest in computer technology to design the initial layouts, typeset the necessary copy, and perform the final page composition. We then use the latest in four-color presses and bindery equipment to produce the highest quality work obtainable. In addition, we have extensive direct mail marketing and fulfillment services available.

Creative Designs can help you with any of the following:

..Books
..Manuals
..Brochures
..Newsletters
..Business Plans
..Annual Reports
..Business Forms
..Flyers
.. Posters
..Catalogs
..Pamphlets
..Newsletters
..Presentations
..Mailing Labels

..or Anything that can be printed

Call us at 1-800-555-5000 (nationwide) or stop in at our new plant 1900 Westwind Avenue, Oceanside, WA 98999.

*Source: **Using PageMaker for the PC,***
Osborne/McGraw-Hill.

Desktop Publishing
N-32

Sample: 3-Way Fold Brochure

Pledge

I solemnly promise to uphold the aims and responsibilities of Future Business Leaders of America-Phi Beta Lambda and, as an active member, I shall strive to develop the qualities necessary in becoming a responsible business leader.

Future

Business

Leaders

of

America

TM23-A

HORIZONTAL AND VERTICAL SPACING

HORIZONTAL SPACING

Horizontal spacing of letters determines the length of a line. Line length is called *column width* and is measured in *picas* . Horizontal spacing is a function of the size of individual letters and the spacing between them.

12 points equal a pica and 6 picas equal an inch

ALIGNMENT -- Text can be aligned as desired.

Left aligned -- Left margin is aligned
Right aligned -- Right margin is aligned.
Justified -- Both left and right margins are aligned.

Extra spaces may be added between both words and letters.

KERNING -- Taking away space between certain letter pairs so that they overlap.

VERTICAL SPACING

LEADING -- (Pronounced "ledding") Vertical spacing between lines.

Leading, like type, is measured in points. Example, 10-point type with 12-point leading is described as **10/12.** **A 12/12** is normal vertical spacing. Increased leading increases the space between lines.

EXAMPLES OF LEADING

This is 10-point Helvetica type with 10-point leading. It is called 10/10. This is normal vertical spacing.

This is 10-point Helvetica type with 12-point leading. It is called 10/12. This is the same as Pagemaker provides with AUTO leading

This is 10-point Helvetica type with 14-point leading. It is called 10/14. Notice the spread that appears between the lines of type. This is an excessive spread.

This is 10 point Helvetica with 8-point leading. It is called 10/8
Notice that the lines begin to overlap with negative leading.

DESIGN ELEMENTS

Separate and emphasize text

RULES
BOXES
RECTANGLES
BULLETS

APPEARANCE ELEMENTS

HEADINGS
SUBHEADINGS
CAPTIONS
TYPEFACES AND THEIR SIZE
COLUMNS AND LINES

Use with caution.

Used appropriately, they are effective and enhancing.

Over-used, they are distracting and mar good publications.

TYPE SIZE

Typesize is measured in *points.*

One *Point* equals 1/72 inch.

Points are measured from the top of the *ascenders* (top of the letter **k** or **b**) to the bottom of the *decenders* (the bottom of a **y** or **p**).

EXAMPLES OF TYPE FROM 6 TO 72 POINTS

6-point type
8 point type
10-point type
12-point type
14 point type
18-point type
24-point type
30 point type
36 point type
48 point type
60 point type
72 point type

EVALUATION MEASURES
FOR
DESKTOP PUBLISHING

COMPETENCY OBJECTIVE 18.1: Identify hardware components and software for desktop publishing.

Test Item 018-18.1-01

INSTRUCTIONS TO STUDENTS: Circle the number of the items below which are hardware components of a desktop publishing system.

1. Scanner
2. Word processor
3. Microcomputer
4. Dot matrix printer
5. Laser printer
6. Computer mouse
7. Video display (Monitor)
8. Electronic template
9. Modem
10. Desktop publishing program

Test Item 018-18.1-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements. Determine if each statement is true or false. Write the correct response (true or false) in the blank to the left of each statement.

__________ 1. Laser printers produce output quality equal to high-resolution imagesetters.

__________ 2. Dot matrix printers produce typeset quality.

__________ 3. Laser printers produce near typeset quality.

__________ 4. Scanners are used to produce image files for desktop publishing.

__________ 5. Scanners are used to produce text files for desktop publishing.

__________ 6. All desktop publishing programs require a microcomputer with 512K of RAM (random access memory).

__________ 7. Many DTP programs require a microcomputer with a hard drive.

__________ 8. Laser printers provide an inexpensive method of producing large quantities of a document.

Test Item 018-18.1-03

INSTUCTIONS TO STUDENTS: List the hardware required for desktop publishing.

Test Item 018-18.1-04

INSTRUCTIONS TO STUDENTS: List four desktop publishing programs.

1. _______
2. _______
3. _______
4. _______

Test Item 018-18.1-05

INSTRUCTIONS TO STUDENTS: Answer the following question.

List the types of software programs that can be integrated for desktop publishing.

COMPETENCY OBJECTIVE 18.2: Summarize the advantages of using a desktop publishing program.

Test Item 018-18.2-01

INSTRUCTIONS TO STUDENTS: State in your own words why a business would use a desktop publishing program rather than to the services of a commercial printer.

Test Item 018-18.2-02

INSTRUCTIONS TO STUDENTS: Explain why a commercial printer might use a desktop publishing program.

Test Item 018-18.2-03

INSTRUCTIONS TO STUDENTS: Explain how the use of a desktop publishing program can reduce the cost of a document which will be printed by a commercial printer.

Test Item 018-18.2-04

INSTRUCTIONS TO STUDENTS: Answer the following:

What are the advantages of using a desktop publishing program in three of the following applications?

a. Newsletters
b. Technical Documentation
c. Proposals
d. Employee manual

Test Item 018-18.2-05

INSTRUCTIONS TO STUDENTS: Briefly describe five advantages of using a desktop publishing program.

1.

2.

3.

4.

5.

COMPETENCY OBJECTIVE 18.3: Recognize desktop-publishing terms.

Test Item 018-18.3-01

INSTRUCTIONS TO STUDENTS: Place the correct match in the blank to the left of the definition.

_____ 1. The amount of space between the tops of capital letters of two successive lines of type.

_____ 2. The area of a page inside the margins where most of the text and graphics will be placed.

_____ 3. An adjustment of text on a line to justify both left and right margins.

_____ 4. The area of a page containing text and graphic elements.

_____ 5. Preliminary page layout.

_____ 6. A unit of measure used by printers to measure linear dimensions. Equals 1/6 of an inch.

_____ 7. Adjusting the space between pairs of letters to increase readability.

_____ 8. A publication that contains only the layout grid of master and regular pages.

_____ 9. A final or camera-ready layout of a publication.

_____10. Alphabet design used in a printing job.

A. Content area
B. Dummy
C. Flush
D. Image area
E. Justified
F. Kerning
G. Layout grid
H. Leading
I. Mechanical
J. Pica
K. Pixel
L. Rough
M. Thumbnail
N. Typeface
O. Typefamily
P. White space

Test Item 018.18.3-02

INSTRUCTIONS TO STUDENTS: Place the letter of the correct match in the blank to the left of the definition.

______ 1. Values which are "built in" computer programs.

______ 2. A computer application that sends files to the printer and allows the user to continue working on other files while a file is printed.

______ 3. Predrawn art available on disks in a number of graphic program formats.

______ 4. To enlarge a selected file or portion of a file so that it fills the screen.

______ 5. The sharpness of an image on a screen or printed form. It is usually measured in dots, lines or spots per inch.

______ 6. Area of the computer screen where you are running a computer applications.

______ 7. Invisible holding place where computer program temporarily stores text or graphics.

______ 8. A single dot on a computer screen.

______ 9. "What you see is what you get".

______10. To hold down the main mouse button, move the mouse around to highlight menu options or text, then release the button.

A. Clipart
B. Clipboard/buffer
C. Default
D. DPI
E. Drag
F. Hard Drive
G. Linen tester
H. Pasteboard
I. Pixel
J. Pica
K. Place holder
L. Resolution
M. Scanner
N. Spooler
O. Window
P. WYSIWYG
Q. Zoom

COMPETENCY OBJECTIVE 18.4: Describe the steps of the DTP cycle.

Test Item 018-18.4-01

INSTRUCTIONS TO STUDENTS: Read each of the following statements. Determine if the statements are true or false. Write the correct response (true or false) in the blank to the left of each statement.

______ 1. Both simple and complex publications require the same basic steps to produce an effective document.

______ 2. Planning is concerned with the final appearance of the document.

______ 3. Headings, subheadings and captions are elements of design.

______ 4. The objective of design is to produce a publication at the lowest possible costs.

______ 5. The purpose of a printed piece is an important factor in design.

Test Item 018-18.4-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements. Determine if the statements are true or false. Write the correct response (true or false) in the blank to the left of each statement.

_____ 1. Planning is concerned with the content, the schedule, and the budget.

_____ 2. A desktop publication requires less planning than a publication produced with traditional techniques.

_____ 3. Content creation includes text only.

_____ 4. Page make-up combines the functions of typesetting and pasteup.

_____ 5. It is relatively inexpensive to print large quantities of a document on a laser printer.

Test Item 018-18.4-03

INSTRUCTIONS TO STUDENTS: List in their proper sequence, the steps of the desktop publishing cycle.

COMPETENCY ITEM 018-18.5: Identify applications in which desktop-publishing programs can be used.

Test Item 018-18.5-01

INSTRUCTIONS TO THE STUDENT: List five (5) applications of desktop publishing.

Test Item 018.5-02

INSTRUCTIONS TO STUDENTS: In your own words, explain how a commercial printer might use a desktop-publishing program.

Test Item 018-18.5-03

INSTRUCTIONS TO STUDENTS: Read the following case situation. Prepare a written response.

Reynolds Manufacturing Company needs an instruction sheet to be placed in the package with a product it plans to market. What recommendations would you make for producing several thousand copies of the document? State the reasons for your recommendations.

COMPETENCY OBJECTIVE 18.6: Identify the principles and techniques of page design.

Test Item 018-18.6-01

INSTRUCTIONS TO THE STUDENT: Complete the statement below by filling in the missing word.

1. Descriptive text which accompanies illustrations is called a ____________________ .
2. A line of text at the bottom of a column indicating that the article is continued on another page and indicating the page is called a/an ____________________ .
3. A short excerpt from an article used to draw the reader's attention to the article is a/an ____________________ .
4. A line following a heading (and preceding the byline) that gives more information about an article is called ____________________ .
5. A phrase preceding a headline (usually in different type) that provides information about the article or headline is called a/an ____________________ .
6. The first line of a paragraph appearing at the bottom of a page with the balance of the paragraph carried to the next page or column is called a/an ____________________ .
7. A decorative character used for emphasis in text is called a/an ____________________ .
8. Text or graphics that appear on all pages or non-printing guides of a publication are called a/an ____________________ .
9. A word or single line carried forward from the last paragraph that appears at the top of a page or column is called a/an ____________________ .
10. A page where you put text, graphics and guides which will be repeated on every page of a publication is called a/an ____________________ page.

Test Item 018-18.6-02

INSTRUCTIONS TO STUDENTS: Using an 8½" x 11" sheet of paper, illustrate how to find the optical and physical center of page . Label each.

Test Item 018-18.6-03

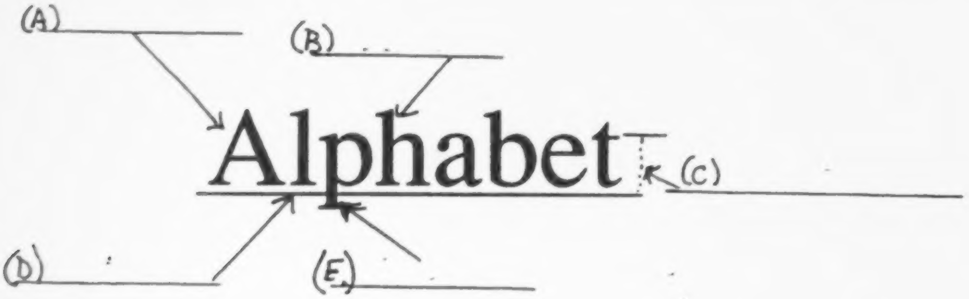
INSTRUCTIONS TO STUDENTS: Read the following statement and answer the question.

Dominance is usually achieved by contrasting the most important parts of the message with the rest of the sheet.

List four (4) design elements that project dominance.

Test Item 018-18.6-04

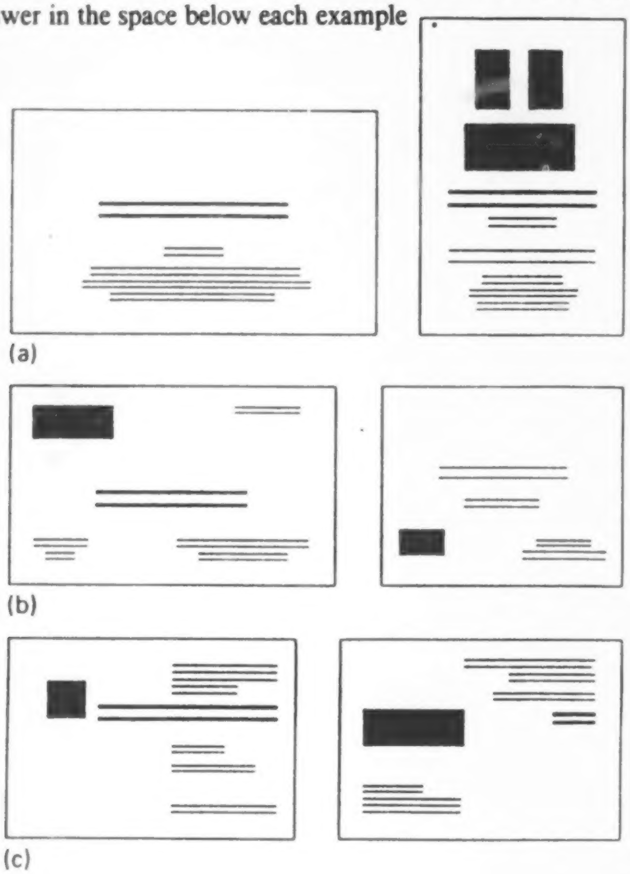
INSTRUCTIONS TO STUDENTS: Identify each part of a typeface by writing your answer in the space provided.



Parts of a typeface

Test Item 018-18.6-05

INSTRUCTIONS TO STUDENTS: Identify the kind of **visual balance** shown in each of the following examples. Write your answer in the space below each example



Evaluation Project

Create a Flyer

Note: This project will test competency objectives 18.7, 18.8, 18.9, 18.10, and 18.11.

COMPETENCY OBJECTIVE 18.7: Prepare materials to be used in a desktop publication.

Test Item 018-18.7-01

INSTRUCTIONS TO STUDENTS: Create a one-page flyer.

1. Working individually, plan a simple one-page flyer.
   Suggestions : Announcement of special school activities, such as, magazine sales, student government election, club activity, vocational honor society, or special recognition of individual students or teams.

2. Prepare a disk for files.

COMPETENCY OBJECTIVE 18.8: Create a text file for desktop publication using word-processing software.

Test Item 018-18.8-01

INSTRUCTIONS TO STUDENTS:

1. Using a word processing program, create and edit the text file (if required) for the flyer.

2. Save the file to a disk.

COMPETENCY OBJECTIVE 18.9: Create graphs and/or images for desktop publication.

Test Item 018-18.9-01

INSTRUCTIONS TO STUDENTS:

1. Using graphics program, clipart, or scanner create and edit graphics and/or images for the flyer.

2. Save the file to a disk.

COMPETENCY OBJECTIVE 18.10: Format page make-up.

Test Item 018-18.10-01

INSTRUCTIONS TO STUDENTS:

1. Using DTP software, use appropriate commands and/or options to define a new file to the program.

2. Retrieve the graphic file and place it in the DTP file.

3. Position, resize, or crop (trim) it as necessary.

4. Using the text features of the DTP program add headlines, text and/or captions to the file.

5. Save the file to a disk.

COMPETENCY OBJECTIVE 18.11: Print a desktop publishing document.

Test Item 018-18.11-01

INSTRUCTIONS TO STUDENTS: Print the flyer.

Evaluation Project
Create a Brochure

Note: This project will test competency objectives 18.7, 18.8, 18.9, 18.10, and 18.11.

COMPETENCY OBJECTIVE 18.7: Prepare materials to be used in a desktop publication.

Test Item: 018-18.7-02

INSTRUCTIONS TO STUDENTS: Plan a brochure.

1. Working individually or with a small group, plan a single sheet brochure. Print on both sides and fold. The brochure can be folded in the middle or fold into thirds. (Note: All of the following steps may not apply—depending on your brochure design.)

2. Prepare a disk for the files.

COMPETENCY OBJECTIVE 18.8: Create a text file for a desktop publication using word processing software.

Test Item 018.18.8-02

INSTRUCTIONS TO STUDENTS

1. Using a word processing program, create and edit the text file (if required) for the brochure.

2. Save the text file to a disk.

3. Using DTP software, use appropriate commands and/or options to define a new file to the program.

COMPETENCY OBJECTIVE 18.9: Create graphs and/or images for desktop publication.

Test Item 018-18.9-02

INSTRUCTIONS TO STUDENTS:

1. Using a graphics program or other resource, create the graphic or image (if required) for the brochure.

2. Save the graphic file to a disk.

Evaluation Project — Create a Brochure (continued)

COMPETENCY OBJECTIVE 18.10: Format page make-up.

Test Item 018-18.10-02

INSTRUCTIONS TO STUDENTS:

1. Using the page formatting features of the DTP program, establish the page layout.
2. Retrieve and "place" the graphic file (if applicable). Adjust if necessary.
3. Retrieve and "place" the text file (if applicable).
4. Using the text feature of the DTP program, add headings, captions, and text as required.
5. Edit and adjust as necessary.
6. Save the file to a disk.

COMPETENCY OBJECTIVE 18.11: Print a desktop publishing document.

Test Item 018-18.11-02

INSTRUCTIONS TO STUDENTS: Print the brochure and fold it as designed.

EVALUATION PROJECT

Create a Newsletter

Note: This project will test competency objectives 18.7, 18.8, 18.9, 18.10, and 18.11.

COMPETENCY OBJECTIVE 18.7: Create materials to be used in a desktop publication.

Test Item 018-18.7-03

INSTRUCTIONS TO STUDENTS: Plan a Newsletter

1. Working individually (or with a small group), plan a newsletter that is of interest to you. Design the newsletter, using two or three columns. Include charts, graphs, clipart, or scanned images to enhance the document,

   Note: If this is a group project, identify tasks to be done by each member.

2. Assemble the materials to be included in the newsletter.

COMPETENCY OBJECTIVE 18.8: Create a text file for desktop publication using word processing software.

Test Item 018-18.8-03

INSTRUCTIONS TO STUDENTS:

1. Using a word processing program, create and edit the text files for the newsletter.
2. Save the files to a disk.

COMPETENCY OBJECTIVE 18.9: Create graphs and/or images for desktop publication.

Test Item 018-18.9-03

INSTRUCTIONS TO STUDENTS:

1. Using a graphics program, clipart or scanner, create and edit the graphics and/or images for the newsletter.
2. Save the files to a disk.

COMPETENCY OBJECTIVE 18.10: Format page make-up

Test Item 018-18.10-03

INSTRUCTIONS TO STUDENTS:

1. Using a DTP software, use appropriate commands and/or options to define a new file to the program.
2. Using the page formatting features of the program, establish the columns, margins, etc.
3. Retrieve and "place" the graphic file(s). Edit and adjust as necessary.
4. Retrieve and "place" the text file(s).
5. Edit and adjust the text as necessary.
6. Add the final design elements, headings, captions, etc.
7. Save the completed file to a disk.

COMPETENCY OBJECTIVE 18.11: Print a desktop publishing document.

Test Item 018-18.11-03

INSTRUCTIONS TO STUDENTS: Print the newsletter.

TEST ITEM KEYS
FOR
DESKTOP PUBLISHING

018-18.1-01
1, 3, 5, 6, 7

018-18.1-02
1. False
2. False
3. True
4. True
5. False
6. False
7. True
8. False

018-18.01-03
1. Microcomputer
2. Laser printer
3. Mouse
4. Scanner

018-18.01-04
1. Pagemaker
2. Ventura
3. First Publisher
4. Office Publisher
5. Interleaf

018-18.01-05
1. Word processing
2. Page make-up software (desktop publishing)
3. Graphic
4. Utility (ex. windows)

018-18.02-01
(Answers may vary)
1. Control confidential information
2. Save time
3. Better quality without cost of typesetting

018-18.02-02
(Answers may vary.)
1. Document design is faster. It allows the development of several different layouts for customer approval.
2. Reduce cost of production
3. Integration of text and data

018-18.2-03
(Answers may vary)
1. It can be designed in-house
2. Integration of text and data without rekeying
3. Time saving to both printer and customer
4. Less expensive than typesetting

018-18.2-04
(Answers may vary)
a. In-house preparation, time saving, good quality at less cost
b. Protection of confidential information. Data and images created from original files.
c. High quality for items not justifying cost of typesetting.
d. In-house control, reduced cost, time saving, easy to up-date as needed.

018-18.2-06
1. Reduced cost of quality publications
2. Produce publications in-house
3. Control confidential information
4. Time saving
5. Integration of text, images and data from original source.

018-18.3-01

1. H
2. D
3. E
4. A
5. L
6. J
7. F
8. B
9. I
10. N

018-18.1-02

1. C
2. N
3. A
4. Q
5. L
6. O
7. B
8. I
9. P
10. E

018-18.4-01

1. True
2. False
3. True
4. False
5. True

018-18.4-02

1. True
2. False
3. False
4. True
5. False

018-18.4-03

1. Plan
2. Design
3. Content creation
4. Page make-up
5. Print

018-18.5-01

(Answers may vary)
Newsletters
Brochures
Resume
Training manuals
Conference handouts
Reports
Proposals
Visuals
First drafts of higher quality material

018-18.5-02

(Answers may vary)

Designing publications, prepare several different ideas for customer review, reduce cost of publications not justifying typesetting

018-18.5-03

Students answers will vary; points that should be included are:

1. Create text files on word processor or from original files.
2. Use scanner or design files (CAD) for illustrations.
3. Create on DTP and take copy to printer for reproduction.

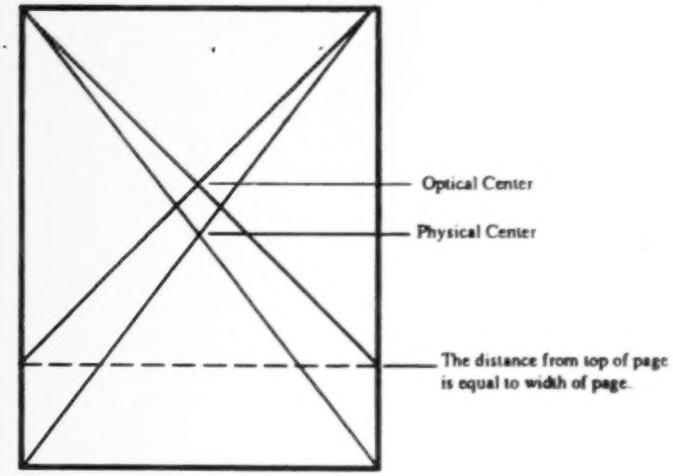
Justification examples:

Instruction sheets do not usually require typeset quality. Technical data can be integrated from original source files without reentering.

018-18.6-01

1. Caption
2. Jumpline
3. Pull quote
4. Deckhead
5. Kicker
6. Widow
7. Dingbat
8. Master items
9. Orphan
10. Master

018-18.6-02


Optical Center
Physical Center
The distance from top of page is equal to width of page.

018-18.6-03

(Answers may vary)
Boldface or italic type
Reverse type
Rules (undelines)
Rectangles/boxes
Shading
Bullets

018-18.6-04

a. Uppercase character
b. Ascender
c. "x" or body height
d. Base line
e. Descender

018-18.6-5

a. Formal
b. Informal
c. Subjective

CHECKLIST FOR EVALUATION PROJECT — FLYER

COMPETENCY OBJECTIVE 18.7: Prepare materials to be used in a desktop publication.

Test Item 018-18.7.-01: Plan a Flyer

1. Plan the publication:
    - _____ a. Content clearly defined?
    - _____ b. Software to be used?
    - _____ c. If group project, are duties assigned?
    - _____ d. Is deadline established?

2. Prepare the data disk:
    - _____ Disk properly formatted?

3. Design the publication:
    - _____ Graphics to be used clearly identified?
    - _____ Text to be used clearly defined?
    - _____ Word processor required for text?
    - _____ Placement of text and graphics indicated on rough?
    - _____ Typeface to be used identified?

Test Item 018-18.8-01 and Test Item 018-18.9-01 Create Text and Graphic Files

_____ Text files properly created and saved to disk?

_____ Graphic files properly created and saved to disk?

Test Item 018-18.10-01 and test item 018-18.111-01 Format Page Make-up and Print the Document.

Final Evaluation of Flyer:

_____ Margins and white space?

_____ Placement of graphics/illustration?

_____ Placement of text?

_____ Typeface and type size?

CHECKLIST FOR EVALUATION PROJECT — BROCHURE

COMPETENCY OBJECTIVE 18.7: Prepare materials to be used in a desktop publication.

Test Item 018-18.7-02: Plan a Brochure.

1. Plan the publication:
    - _____ a. Content clearly defined?
    - _____ b. Software to be used?
    - _____ c. If group project, are duties assigned?
    - _____ d. Is deadline established?
2. Prepare the data disk:
    - _____ Disk properly formatted?
3. Design the publication:
    - _____ Graphics to be used clearly identified?
    - _____ Text to be used clearly identified?
    - _____ Word processor required for text?
    - _____ Placement of text and graphic illustrations indicated on rough.
    - _____ Typeface to be used identified?

Test Items 018-1818-01 and 018-18.9-01: Create Text Graphic Files.

_____ 1. Text files properly created and saved to disk?

_____ 2. Graphic files properly created and saved to disk?

Test Items 018-18.10-02 and 018-18.11-02: Format Page and Print the Brochure.

Final Evaluation of Brochure

_____ Margins and white space?
_____ Placement of graphics/illustrations?
_____ Placement of text?
_____ Typeface and type size?
_____ Folded properly?

CHECKLIST FOR EVALUATION PROJECT — NEWSLETTER

COMPETENCY OBJECTIVE 18.7: Prepare materials to be used in a desktop publication.

Test Item 018-18.7-03: Plan a Newsletter.

1. Plan the publication:

   a. _____ Content clearly defined?
   b. _____ If group project, who will prepare each item?
   c. _____ Software, etc. to be used?
   d. _____ Deadline for work to be complete?

2. Prepare the data disk:

   _____ Disk properly formatted?

3. Design the publication:

   a. Master page layout:

      _____ Masthead?

      _____ Headlines?

      _____ Typeface(s) to be used?

      _____ Graphics?

      _____ Number of columns to be used?

      _____ Design elements to be used?

   b. Detail page(s) layout:

      _____ Placement of images and captions indicated?

      _____ Placement of text indicated?

      _____ Type face(s) to be used?

      _____ Type size to be used?

      _____ Design elements to be used?

Checklist for evaluation project — Newsletter (continued)

Test Item 018-18.8-03: Create Text File(s) for Publication.

_____ 1. Text file created on wordprocessor?

_____ 2. Text file properly named and saved to disk?

Test Item 018-18.9-03: Create Graphics to be Used in Publication.

_____ 1. Graphic illustrations and/or images created as planned in step one?

_____ 2. Graphic file(s) properly named and saved to disk?

Test Item 018-18.10-03: Format Page Make-up.

_____ 1. Page properly formatted using DTP software.

_____ 2. Graphic(s) placed, edited and adjusted.

_____ 3. Text file(s) placed, edited and adjusted.

_____ 4. Design elements added and adjusted. (Headings, captions, etc.)

_____ 5. File properly named and saved to disk.

Test Item 018-18.11-03: Print the Newsletter.

_____ 1. Newsletter properly printed.

_____ 2. Pages assembled in proper order (if necessary).

3. Evaluation of final copy.

Attractively used
and/or positioned:

_____ a. Masthead
_____ b. Headlines
_____ c. Captions
_____ d. Typeface(s)
_____ e. Typesize
_____ f. Margins
_____ g. White space

Negative aspects—Does publication contain:

_____ a. Irregularly shaped blocks of text
_____ b. Angled type
_____ c. Excess underlining
_____ d. Widows or orphans
_____ e. Excessive hyphenation
_____ f. Too many typefaces (sizes)
_____ g. Grammar or spelling errors
_____ h. Exaggerated tabs or indents
_____ i. Unequal spacing
_____ j. Cramped images, logos, addresses, etc.

PARTIAL LISTING OF REFERENCES

FOR
DESKTOP PUBLISHING

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Ulick, Terry. **Personal Publishing with the MacIntosh,** 2nd edition. Hayden Books, Indianapolis, IN.

Will, Harris. **Desktop Publishing with Style.** And Books, 704 South Michigan, South Bend, IN.

SOFTWARE

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Harvard Pro Publisher. Software Publishing Corp., 1901 Landings Drive, Mountain View, CA 94043.

IBM Interleaf Publisher. IBM, Systems Products Division, PO Box 1328, Boca Raton, FL 33432.

Individual Training for PageMaker. Individual Software, Inc., 125 Shoreway Road, Suite 3000, San Carlos, CA 94070-2704. 1-415-595-8855.

Legend. NBI Inc., Bolder, CO.

MacPublisher III. Boston Software Publishers.

NewMaster II. Unison World, Inc., PO Box 3056, 2150 Shattuck Avenue, Berkeley, CA 94703.

Newsroom/Pro. Springboard Software, Inc., 7808 Creekridge Circle, Minneapolis, MN 55435.

PageMaker. Aldus Corporation, 411 1st Avenue South, Suite 200, Seattle, WA 98104. 1-206-622-5500.

PFS: First Publisher. Software Publishing Corp., 1901 Landing Drive, PO Box 7210, Mountain View, CA 94039-7210.

Publish It. Scholastic, Inc., PO Box 7502, 2931 East McCarty Street, Jefferson City, MO 65102. 1-800-541-5513.

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Ready Set Go!. Letraset USA.

Springboard Publisher. Springboard Software, 7807 Creekridge Circle, Minneapolis, MN 55435. 1-612-944-3912.

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Ventura Desktop Publishing. Xerox (Ventura Software), PO Box 24, Rochester, NY 14692. 1-800-832-6979.

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MacUser. Ziff-Davis Publishing Co., One Park Avenue, New York, NY 10016.

PC Magazine: The Independent Guide to IBM Personal Computer. PO Box 2442, Boulder, CO 80321.

Personal Computing. PO Box 2941, Boulder, CO 80321.

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Lytle, Phyllis. **Desktop Publishing in Business and Office Education.** 116 W. Edenton Street, Room 592, Education Building, Raleigh, NC 27603-1712, (919) 733-7985.

TABLE OF CONTENTS
FOR
PRESENTATION GRAPHICS

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COMPETENCIES
FOR
PRESENTATION GRAPHICS

COMPETENCY GOAL 19: The learner will use presentation graphics.

COMPETENCY OBJECTIVES

19.1 Identify the advantages of presentation graphics.

19.2 Identify input/output devices and media used in presentation graphics.

19.3 Identify several applications in which presentation graphics software can be used.

19.4 Identify the principles and techniques of constructing graphs.

19.5 Recognize the type of graph most appropriate for a particular set of data.

19.6 Assemble data to be used in presentation graphics.

19.7 Create graphs and/or images for presentations.

19.8 Develop reports or presentations with emphasis on strategic placement of graphic aids.

STUDENT ACTIVITIES
FOR
PRESENTATION GRAPHICS

Introduction to Presentation Graphics	Planning Notes
1. What is meant by the phrase presentation graphics? List at least 5 advantages of using graphics in an oral or written presentation.	TM1
2. Identify 10 applications for presentation graphics and give the job title of the person who would use each application.	TM2, TM3

Input/Output Devices used in Presentation Graphics

Write a clear definition for each of the devices below. Place a check mark (✓) next to any of these devices that are in your classroom. — TM4, TM5

1. Dot matrix printer
2. Ink jet printer
3. Laser printer
4. Plotter printer
5. Thermal transfer printer
6. Film recorder
7. Graphics monitor
8. Graphics tablet
9. Light pen
10. Mouse

How to Produce Well-Designed Graphs or Charts

Read each of the following principles for producing well-designed graphs or charts. Give at least one reason why each is important. — TM6, HO1

1. Before beginning to design a graph, the designer should identify the primary message to be conveyed in the graph.
2. The text style in a graph or chart should be plain. — TM7, TM8
3. Color or patterns should be used as filling to emphasize or differentiate specific graphic elements.
4. The Y-axis should always begin at zero.
5. Horizontal or vertical grids should be used to make clear the exact locations of data points on a graph.
6. Before deciding what type of graph will be used, the designer should determine the comparison to be made.

Planning Notes

HO2, TM9
through TM15

Choosing the Correct Graph Type

Match the correct graph type with each statement.
Fill in the blank to the right of each statement with the letter of your choice.

A. area
B. bar
C. high/low/close
D. histogram
E. line
F. pie chart
G. scatter or dot
H. stacked bar

WHEN DATA SHOWS: GRAPH TYPE*

1. Change in volume ________
2. Change over time
   (a) over a few time periods ________
   (b) over many time periods ________
3. Parts of a whole
   (a) at a specific time ________
   (b) at 2 different times ________
   (c) over a few time periods ________
   (d) over many time periods ________
4. Relationship between 2 data sets
   (a) over a few time periods ________
   (b) over many time periods ________
5. Correlation ________
6. Stock/Bond prices ________
7. Trends ________
8. Frequency distribution ________

*From *Harvard Graphics* software documentation.

Creating and Presenting the Final Report

HO3

Create and present an oral and/or written report.

1. Use a subject provided by your teacher or choose a subject yourself.
2. Research your subject.
3. Write an outline for your presentation.
4. Create graphs and charts to illustrate and enhance your presentation.
5. If the report is written, write and print the final document. If the report is oral, present your findings to your class.

How to Produce Well-Designed Graphs or Charts

Read each of the following principles for producing well-designed graphs or charts. Give at least one reason why each is important.

1. Before beginning to design a graph, the designer should identify the primary message to be conveyed in the graph.
2. The text style in a graph or chart should be plain.
3. Color or patterns should be used as filling to emphasize or differentiate specific graphic elements.
4. The Y axis should always begin at zero.
5. Horizontal or vertical grids should be used to make clear the exact locations of data points on a graph.
6. Before deciding what type of graph will be used, the designer should determine the comparison to be made.

Choosing the Correct Graph Type

Match the correct graph type with each statement. Fill in the blank to the right of each statement with the letter of your choice.

A. area	E. line
B. bar	F. pie chart
C. high/low/close	G. scatter or dot
D. histogram	H. stacked bar

WHEN DATA SHOWS: GRAPH TYPE*

1. Change in volume ____________

2. Change over time
    (a) over a few time periods ____________
    (b) over many time periods ____________

3. Parts of a whole
    (a) at a specific time ____________
    (b) at 2 different times ____________
    (c) over a few time periods ____________
    (d) over many time periods ____________

4. Relationship between 2 data sets
    (a) over a few time periods ____________
    (b) over many time periods ____________

5. Correlation ____________

6. Stock/Bond prices ____________

7. Trends ____________

8. Frequency distribution ____________

*From *Harvard Graphics* software documentation.

Creating and Presenting the Final Report

Create and present an oral and/or written report.

1. Use a subject provided by your teacher or choose a subject yourself.
2. Research your subject.
3. Write an outline for your presentation.
4. Create graphs and charts to illustrate and enhance your presentation.
5. If the report is written, write and print the final document. If the report is oral, present your findings to your class.

Advantages of Using PRESENTATION GRAPHICS

1. FOCUS THE READER'S ATTENTION .
2. MAKE GRAPHS AND CHARTS EASIER TO UNDERSTAND .
3. MAKE ATTRACTIVE AND PROFESSIONAL-LOOKING GRAPHS WITHOUT ART TRAINING.
4. MAKE INFORMATION EASIER TO REMEMBER.
5. CONVEY INFORMATION MORE QUICKLY.
6. MAKE THE PRESENTER APPEAR MORE PROFESSIONAL.

PRESENTATION GRAPHICS

APPLICATIONS

Show and tell facts quickly and efficiently

Sell a point of view

Provoke faster decisions at meetings

Increase mental retention

Show relationships between numbers

Plot a comparison that would otherwise be hard to understand

Focus attention on certain facts and figures

Provide visual relief

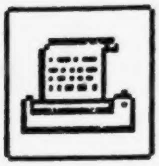
Make facts and figures more believeable

10 CAREERS USING *PRESENTATION GRAPHICS*

Authors
Advertisers
Educators
Engineers
Lecturers
Managers
Politicians
Reporters
Statisticians
Technicians

TM4

Input



A. GRAPHICS MONITOR
B. GRAPHICS TABLET
C. LIGHT PEN
D. MOUSE
E. KEYBOARD

MOUSE - **A SMALL HAND-CONTROLLED DEVICE, CONNECTED TO THE COMPUTER, WITH A BALL ON THE UNDERSIDE AND ONE OR MORE BUTTONS ON THE TOP. WHEN IT IS ROLLED ACROSS A FLAT SURFACE THE USER CAN DRAW OR SELECT FROM MENU OPTIONS.**

LIGHT PEN - **A STYLUS, CONNECTED TO THE COMPUTER, WHICH ALLOWS THE USER TO DRAW BY MOVING THE STYLUS ACROSS THE COMPUTER MONITER.**

TM5

Output

A. DOT MATRIX PRINTER
B. FILM RECORDER
C. LASER PRINTER
D. PLOTTER PRINTER
E. INK JET PRINTER
F. THERMAL TRANSFER PRINTER

DOT MATRIX - AN IMPACT PRINTER THAT USES A MOVABLE PRINT HEAD CONTAINING SMALL PINS WHICH STRIKE THE RIBBON AND PAPER. GRAPHIC IMAGES ARE PRINTED BY PLACING CLUSTERS OF SMALL DOTS ON THE PAPER.

FILM RECORDER - A MONITOR / CAMERA DEVICE WHICH CONNECTS TO THE COMPUTER AND ALLOWS THE USER TO PHOTOGRAPH COMPUTER OUTPUT.

INK JET - A NONIMPACT PRINTER THAT USES NOZZLES THAT SPRAY LIQUID INK DROPS ONTO PAPER.

LASER - A NONIMPACT PRINTER THAT USES A BEAM OF OF LIGHT AND A PHOTOSENSITIVE DRUM TO DRAW EACH DOT OF AN IMAGE.

6 PRINCIPLES FOR DESIGNING GRAPHS & CHARTS

1. IDENTIFY THE PRIMARY MESSAGE
2. CHOOSE PLAIN TEXT STYLE
3. USE COLOR PATTERNS AS FILLING FOR EMPHASIS
4. BEGIN THE Y AXIS AT ZERO
5. USE GRIDS FOR CLARITY
6. DETERMINE THE COMPARISON

TEXT CHARTS
DESIGN PRINCIPLES

- Use for *emphasis*
- No more than 6 lines
- 6 (or fewer) words per line

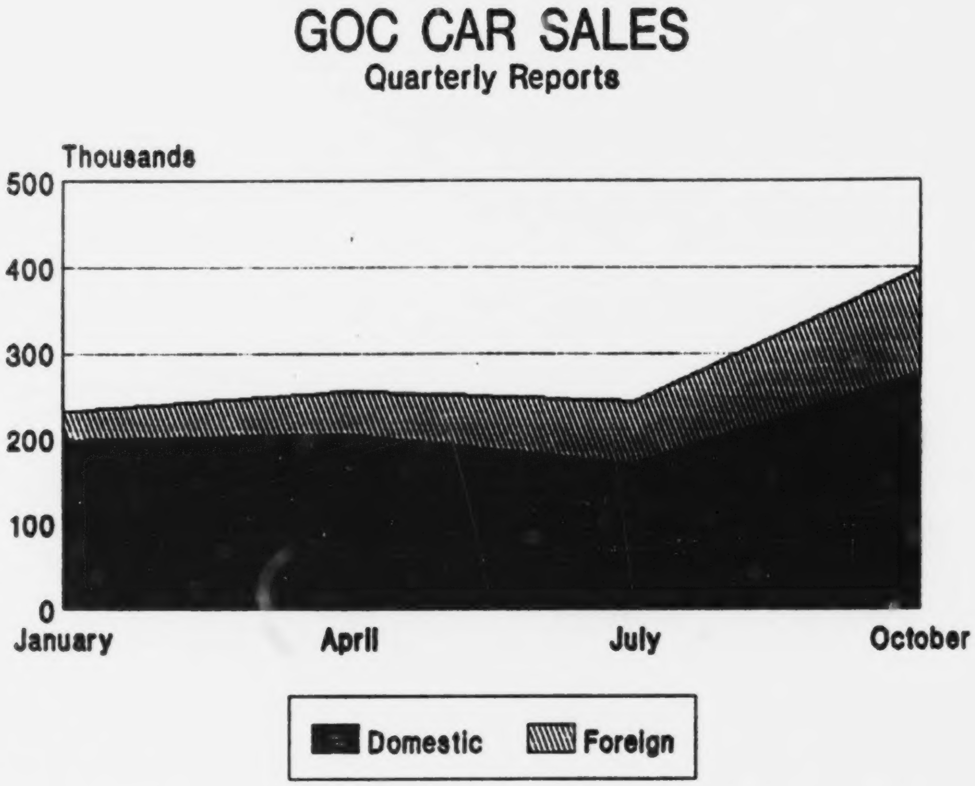
TYPES OF TEXT CHARTS

- TITLE charts
- Bullet charts
- Free form charts
- Simple list charts

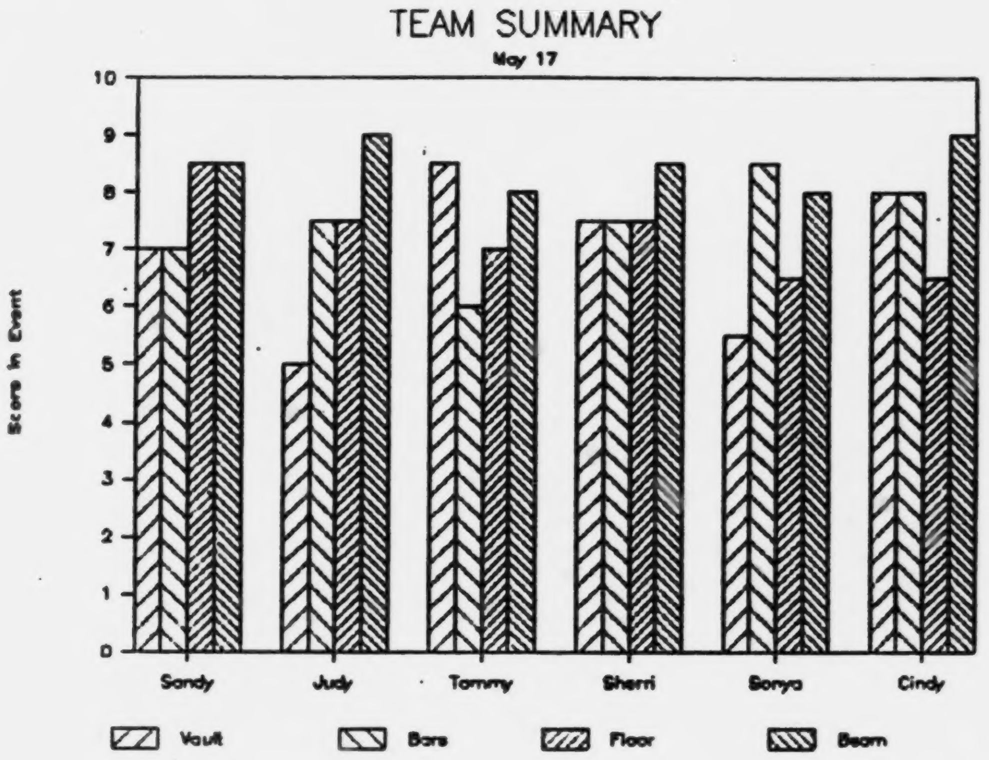
GRAPHS

A. AREA GRAPH
B. BAR GRAPH
C. LINE GRAPH
D. PIE CHART
E. SCATTER OR DOT GRAPH
F. STACKED BAR GRAPH
G. TEXT CHART

TM10

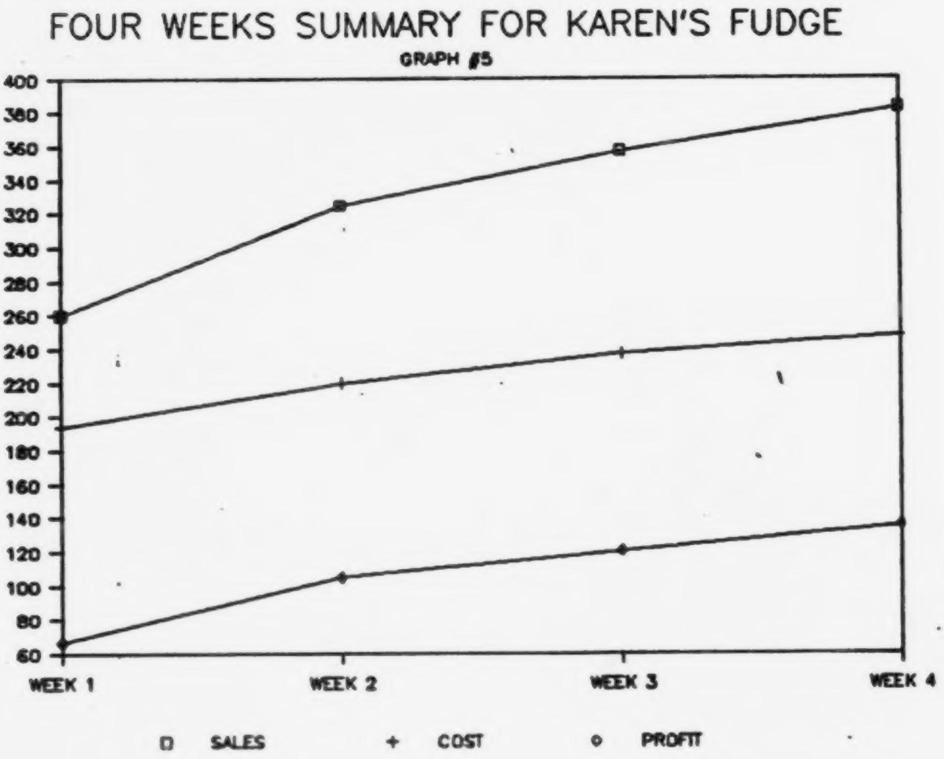


AREA CHART

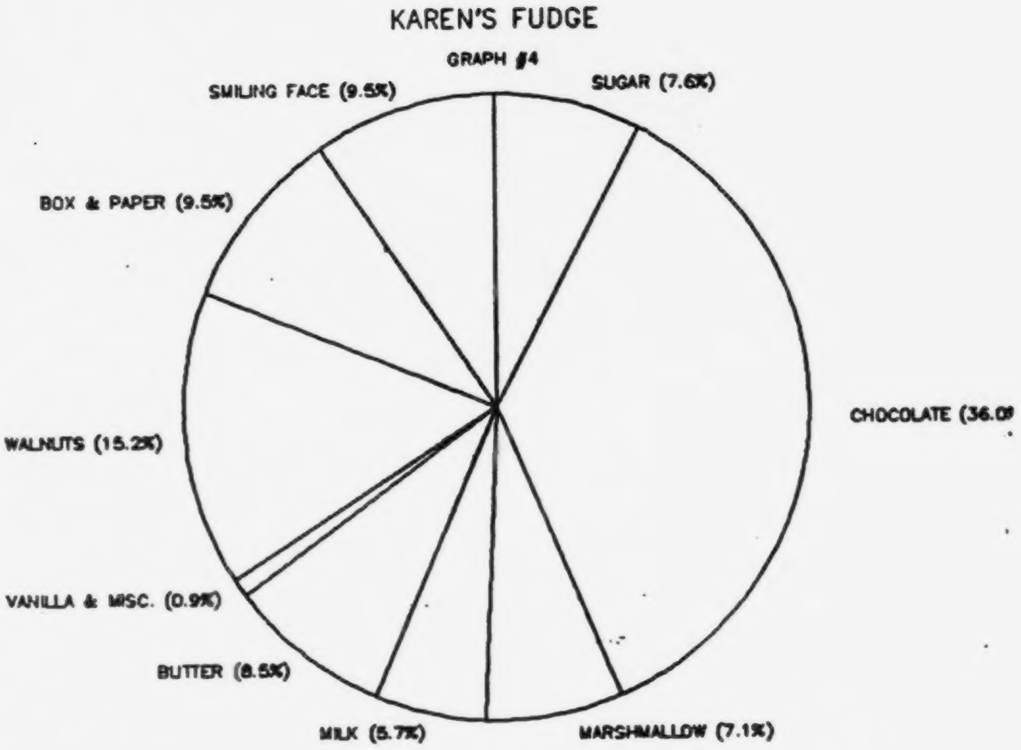

TEAM SUMMARY
May 17
Score in Event
10
9
8
7
6
5
4
3
2
1
0
Sandy
Judy
Tammy
Sherri
Sonya
Cindy
Vault
Bars
Floor
Beam

BAR GRAPH

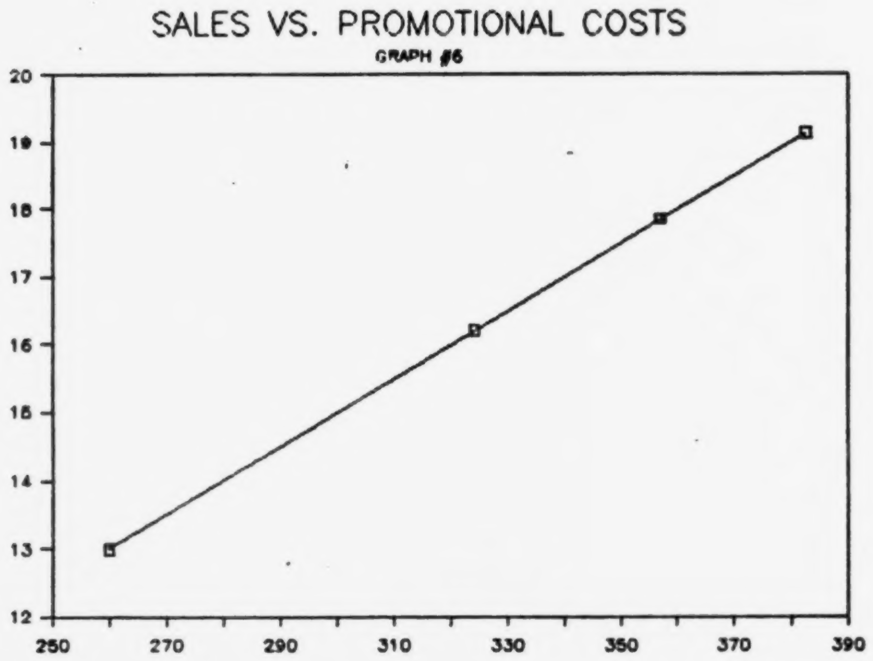
TM12



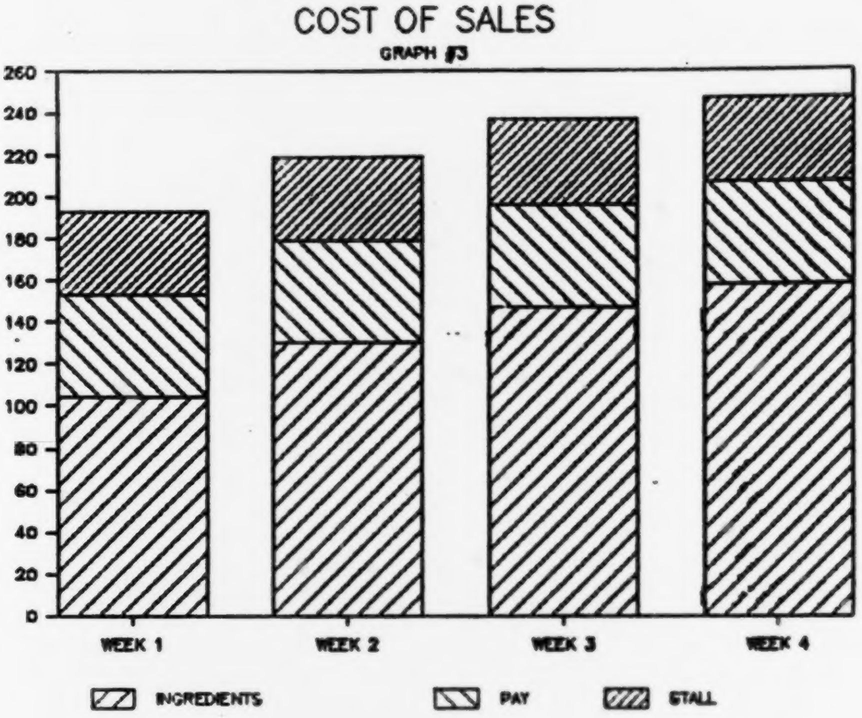
LINE GRAPH


KAREN'S FUDGE
GRAPH #4
SUGAR (7.6%)
CHOCOLATE (36.0
MARSHMALLOW (7.1%)
MILK (5.7%)
BUTTER (8.5%)
VANILLA & MISC. (0.9%)
WALNUTS (15.2%)
BOX & PAPER (9.5%)
SMILING FACE (9.5%)

PIE CHART



SCATTER OR DOT GRAPH



STACKED BAR GRAPH

EVALUATION MEASURES
FOR
PRESENTATION GRAPHICS

COMPETENCY GOAL 19: The learner will use presentation graphics.

OBJECTIVE 19.1: Identify the advantages of presentation graphics.

Test Item 019-19.1-01

INSTRUCTIONS TO STUDENTS: Read each of the following statements about presentation graphics. Determine if each statement is true or false. Record the correct response (true or false) in the blank to the left of each statement.

____________ 1. One advantage of using presentation graphics in a written report is that the reader's attention can be focused on those facts and figures which the writer wants to emphasize.

____________ 2. One advantage of using presentation graphics is that graphs and charts are often easier to understand than written facts and figures.

____________ 3. One advantage of using presentation graphics is that an employee can produce attractive and professional-looking graphs and charts without any training in art.

____________ 4. One advantage of using presentation graphics is that information given orally is easier for the listener to remember with the aid of graphics.

____________ 5. One advantage of using presentation graphics is that one can convey information more quickly and efficiently than with words alone.

____________ 6. One advantage of using presentation graphics is that the presenter is perceived as being more professional than the presenter who does not use presentation graphics.

Test Item 019-19.1-02

INSTRUCTIONS TO STUDENTS: List at least five (5) advantages of using presentation graphics.

1.

2.

3.

4.

5.

Test Item 019-19.1-03

INSTRUCTIONS TO STUDENTS: Read the statements below. Identify those statements which are advantages of using presentation graphics. Place a check mark (✓) in the blank to the left of any statement which is an advantage. Do not place a mark in the blank if the statement is not an advantage.

__________ 1. Using presentation graphics in a written report focuses the reader's attention on those facts and figures which the writer wants to emphasize.

__________ 2. Presentation graphics software can create graphs and charts without the need to enter facts and figures.

__________ 3. A user of presentation graphics is perceived as being more professional than one who does not use presentation graphics.

__________ 4. Presentation graphics can make written material more appealing.

__________ 5. Presentation graphics can convey information more quickly and efficiently than words.

__________ 6. The user of presentation graphics software need not be an artist in order to produce effective graphs and illustrations.

__________ 7. Using presentation graphics software to create graphs, charts or illustrations is less expensive than hiring an artist.

OBJECTIVE 19.2: Identify input/output devices and media used in presentation graphics.

Test Item 019-19.2-01

INSTRUCTIONS TO STUDENTS: From the list of input/output devices below, choose the one which best matches each statement. Place the letter of the device you choose in the blank to the left of the statement.

A. Dot matrix printer
B. Film recorder
C. Graphics monitor
D. Graphics tablet
E. Ink jet printer
F. Laser printer
G. Light pen
H. Mouse
I. Plotter printer
J. Thermal transfer printer

__________ 1. An impact printer that uses a movable printhead containing small pins which strike the ribbon and paper. Graphic images are printed by placing clusters of small dots on the paper.

__________ 2. A small hand-controlled device, connected to the computer, with a ball on the underside and one or more buttons on the top. When it is rolled across a flat surface, the user can draw or select from menu options.

__________ 3. A monitor/camera device which connects to the computer and allows the user to photograph computer output.

__________ 4. A stylus, connected to the computer, which allows the user to draw by moving the stylus across the computer monitor.

__________ 5. A non-impact printer that uses nozzles that spray liquid ink drops onto paper.

__________ 6. A non-impact printer that uses a beam of light and a photosensitive drum to draw each dot of an image onto paper.

Test Item 019-19.2-02

INSTRUCTIONS TO STUDENTS: Choose the one best word or phrase which completes each of the statements below. Write the letter of your choice in the blank to the left of each statement.

__________ 1. A printer that creates images by moving one or more pens over the paper or by moving the paper under the tip of the pens is called
(a) laser printer
(b) dot matrix printer
(c) ink jet printer
(d) plotter printer

__________ 2. A monitor/camera device which connects to the computer and allows the user to photograph computer output is called
(a) monochrome monitor
(b) film recorder
(c) graphics monitor
(d) monitor hood

__________ 3. A small, hand-controlled device, connected to the computer, with a ball on the underside and one or more buttons on the top is called
(a) mouse
(b) light pen
(c) graphics tablet
(d) keypad

__________ 4. An impact printer that uses a movable printhead containing small pins which strike the ribbon and paper is called
(a) laser printer
(b) dot matrix printer
(c) ink jet printer
(d) plotter printer

__________ 5. A non-impact printer that uses nozzles that spray liquid ink drops onto paper is called
(a) laser printer
(b) dot matrix printer
(c) ink jet printer
(d) plotter printer

OBJECTIVE 19.3: Identify several applications in which presentation graphics software can be used.

Test Item 019-19.3-01

INSTRUCTIONS TO STUDENTS: Read each of the following statements about presentation graphics applications. Determine if each statement is true or false. Record the correct response (true or false) in the blank to the left of each statement.

__________ 1. One application for presentation graphics is to create signs, posters and greeting cards in the home.

__________ 2. Professionals in technical fields may use presentation graphics to explain difficult concepts.

__________ 3. Presentation graphics is used in most popular video games.

__________ 4. Sales people may use presentation graphics to help sell an idea or product.

__________ 5. Presentation graphics is used in business reports to focus the reader's attention on important facts or figures.

__________ 6. Creative artists may use presentation graphics to create original works of art.

__________ 7. A lecture which includes slides is a popular use of presentation graphics.

Test Item 019-19.3-02

INSTRUCTIONS TO STUDENTS: List at least five (5) applications for using presentation graphics.

1.

2.

3.

4.

5.

OBJECTIVE 19.4: Identify the principles and techniques of constructing graphs.

Test Item 019-19.4-01

INSTRUCTIONS TO STUDENTS: List five (5) general principles for producing well-designed graphs or charts.

1.

2.

3.

4.

5.

Test Item 019-19.4-02

INSTRUCTIONS TO STUDENTS: Read each of the following principles for producing well-designed graphs or charts. Fill in the blanks in the sentences below with the word or phrase which best completes the sentence.

1. Before beginning to design a graph, the designer should identify the primary ____________________ to be conveyed in the graph.

2. For ease in reading the text on a graph or chart, keep the ____________________ style plain.

3. To emphasize or differentiate specific graphic elements, use color or patterns as ____________________________

4. Always begin the ____________________ axis at zero.

5. In order to make clear the exact locations of data points on a graph, use a horizontal or vertical ______________________

6. Before deciding what type of graph will be used, determine the __________________ to be made.

Test Item 019-19.4-03

INSTRUCTIONS TO STUDENTS: Read each of the following statements about techniques of constructing graphs. Determine if each statement is true or false. Record the correct response (true or false) in the blank to the left of each statement.

__________ 1. In constructing a pie chart, the maximum number of data points is four (4).

__________ 2. In constructing a pie chart, the maximum number of data series (ranges) is one (1).

__________ 3. In constructing a pie chart, a grid should always be used.

__________ 4. In constructing a bar graph, X axis labels will be placed along the bottom.

__________ 5. In constructing a bar graph, a grid may be used for clarity.

__________ 6. In constructing a bar graph, the space between the bars should be larger than the width of the bars.

__________ 7. In constructing a stacked bar graph, filling of different patterns should be used in each of the different segments.

__________ 8. In constructing a line graph, a grid may be necessary to show exact location of data points.

__________ 9. In constructing a multiple-line graph, each line should have a different weight, pattern or color.

__________ 10. In constructing a scatter (dot) graph, both horizonal and vertical grids may be used.

OBJECTIVE 19.5: Recognize the type of graph most appropriate for a particular set of data.

Test Item 019-19.5-01

INSTRUCTIONS TO STUDENTS: From the list of graphs/charts below, choose the one which best matches each statement. Place the letter of the graph/chart you choose in the blank to the left of the statement. More than one answer may be used for some statements.

A. Area graph
B. Bar graph
C. Line graph
D. Pie chart
E. Scatter or dot graph
F. Stacked bar graph
G. Text chart

__________ 1. Use this common type of graph/chart to show a trend.

__________ 2. Use this type of graph/chart to show change over time.

__________ 3. Use this type of graph/chart to show parts of a whole.

__________ 4. Use this type of graph/chart to show parts of a whole over several time periods.

__________ 5. Use this type of graph/chart to show the main ideas in a presentation rather than numeric relationships.

Test Item 019-19.5-02

INSTRUCTIONS TO STUDENTS: Fill in the blanks in the sentences below with the graph type which best completes the sentence.

1. A ________________ chart usually shows quantitative data in percents or absolute numbers that are parts of a whole.

2. ________________ graphs are useful for describing and comparing trends in numerical data over time.

3. ________________ graphs should be used to compare items, rather than changes over time.

4. ________________ graphs show the component parts of several wholes.

5. Special kinds of line graphs, called ________________ graphs, emphasize volume but should not be used to emphasize changes in volume.

OBJECTIVE 19.6: Assemble data to be used in presentation graphics.

Test Item 019-19.6-01

INSTRUCTIONS TO STUDENTS: Choose the one best word or phrase which completes each of the statements below. Write the letter of your choice in the blank to the left of each statement.

__________ 1. Data used in creating graphs must be quantitatively
(a) designed
(b) patterned
(c) chosen
(d) measurable

__________ 2. Data for all graph types except pie charts must
(a) remain static
(b) fluctuate
(c) show a trend
(d) be cumulative

__________ 3. Data for the graph must be
(a) secure
(b) obscure
(c) unobtainable
(d) available

__________ 4. Before creating the graph, you should ascertain that the data is both reliable and
(a) accurate
(b) simple
(c) password protected
(d) believable

__________ 5. The data for all graphs must show some sort of numerical
(a) percent
(b) comparison
(c) fraction
(d) population

Test Item 019-19.6-02

INSTRUCTIONS TO STUDENTS: List five (5) sources where data for creating graphs may be found; i.e., professional journals.

1.

2.

3.

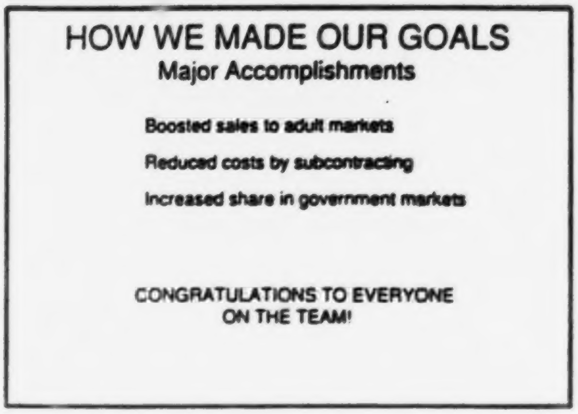
4.

5.

OBJECTIVE 19.7: Create graphs and/or images for presentations.

Test Item 019-19.7-01

INSTRUCTIONS TO STUDENTS: Create a text chart to look like the example below.



HOW WE MADE OUR GOALS

Major Accomplishments

Boosted sales to adult markets

Reduced costs by subcontracting

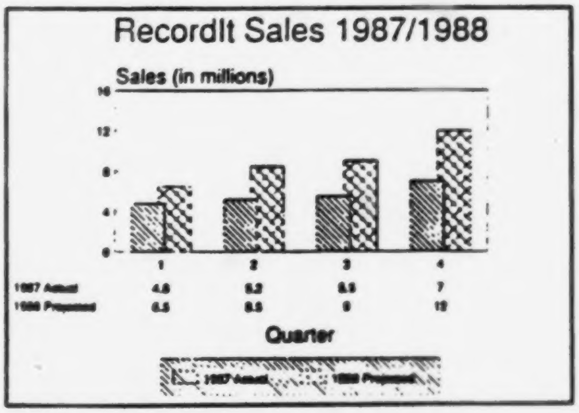
Increased share in government markets

CONGRATULATIONS TO EVERYONE
ON THE TEAM!

Source: **Harvard Graphics—An Introductory Workshop,** Leader's Guide, Software Publishing Corporation.

Test Item 019-19.7-02

INSTRUCTION TO STUDENTS: Create a bar chart to look like the example below.



Source: **Harvard Graphics—An Introductory Workshop,** Leader's Guide, Software Publishing Corporation.

OBJECTIVE 19.8: Develop reports or presentations with emphasis on strategic placement of graphic aids.

Test Item 019-19.8-01

INSTRUCTIONS TO STUDENTS: John Williams is the plant manager for Fresh Aire, a company which manufactures parts for air conditioning units. During the past 5 months he has noted an increase in the number of breakdowns of Machine #20 which produces part #2213.

Machine #20

Month	Downtime
January	44.5 hrs.
February	47.2 hrs.
March	57.0 hrs.
April	55.4 hrs.
May	62.1 hrs.

John has also noted an increase in the number of rejects of part #2213 after inspection during the same period.

Part #2213

Month	Parts Produced	Parts Rejected
January	112,713	1,097
February	112,144	1,101
March	110,950	2,251
April	110,757	2,045
May	109,030	2,374

John wants to convince his boss, Charles Johnson, that Machine #20 should be replaced. His records show that the repair costs for Machine #20 are as follows:

Repair Costs for Machine #20

Month	Labor	Parts	Total
January	$772.08	$192.10	$964.18
February	818.92	108.84	927.76
March	988.95	253.44	1242.39
April	961.19	209.17	1170.36
May	1077.44	197.13	1274.57
Totals	$4618.58	$960.68	$5579.26

Write a two or three page memo for Mr. Johnson showing why Machine #20 should be replaced. Use at least three (3) graphs or charts to help make your point.

Test Item 019-19.8-02

INSTRUCTIONS TO STUDENTS: Tom and Sally Brown own a catering business called *Savory Solutions*. They have been asked to make a sales presentation to the local Chamber of Commerce, which is planning a luncheon meeting on March 15. They have been asked to provide price per person for three (3) different luncheon plates. They decide to offer the following:

Lunch #1: $7.25
  Barbecued Chicken
  Corn on the cob
  Coleslaw
  Cornbread
  Coffee or Tea
  Shamrock Cupcakes

Lunch #2: $6.75
  Fettucine Alfredo
  Tossed Garden Salad
  Italian Bread
  Coffee or Tea
  Nutty Brownies

Lunch #3: $6.50
  Irish Stew
  Tossed Garden Salad
  French rolls
  Coffee or Tea
  Spumoni Ice Cream

They have been told to limit their presentation to a maximum of 15 minutes. An overhead projector will be available for their use.

Make a plan for this sales presentation by answering the following questions:

(1) What types of graphs or charts should they use?
(2) Show the content of each graph or chart.
(3) Make an outline of the presentation.
(4) Write notes for their use as they make the presentation.
(5) List any special features for the presentation that will help Tom and Sally make the sale.

KEY TO TEST ITEMS
FOR
USING PRESENTATION GRAPHICS

Test Item 019-19.1-01

1. T
2. T
3. T
4. T
5. T
6. T

Test Item 019-19.1-02

The student should list 5 of the 6 advantages listed below:

1. To focus the reader's attention on certain facts and figures
2. To make written facts and figures easier to understand
3. To produce professional looking graphs and charts without training in art
4. To make information easier to remember
5. To convey information more quickly
6. To be perceived as being more professional

Test Item 019-19.2-01

1. A
2. H
3. B
4. G
5. E
6. F

Test Item 019-19.2-02

1. D
2. B
3. A
4. B
5. C

Test Item 019-19.3-01

1. F
2. T
3. F
4. T
5. T
6. F
7. T

Test Item 019-19.3-02

The student should list 5 of the presentation graphics applications below:

1. To show and tell facts quickly and efficiently
2. To sell a point of view
3. To provoke faster decisions at meetings
4. To increase mental retention
5. To show how numbers and statistics relate to each other
6. To plot a comparison that would otherwise be difficult to perceive
7. To focus attention on certain facts and figures
8. To provide visual relief
9. To make facts and figures more believeable

Test Item 019-19.4-01

The student should list 5 of the principles for producing well-designed graphs below:

1. Identify the primary message to be conveyed.
2. Determine what will be compared.
3. Keep it simple—complex graphs are hard to understand.
4. Use patterns and/or color to emphasize, differentiate, or identify specific graph elements.
5. Use a plain, easy-to-read text style.
6. Use a grid, if necessary, for clarity.
7. Always begin the Y Scale at zero.
8. Always note missing data.

Test Item 019-19.4-02

1. Message
2. Text
3. Filling
4. Y
5. Grid
6. Comparison

Test Item 019-19.4-03

1. F
2. T
3. F
4. T
5. T
6. F
7. F
8. T
9. T
10. T

Test Item 019-19.5-01

The student should give at least one of the responses listed below for each item:

1. B, C
2. A, B, C
3. A, B, D, F
4. A, F
5. G

Test Item 019-19.5-02

1. Pie
2. Line
3. Bar
4. Stacked Bar
5. Area

Test Item 019-19.6-01

1. D
2. B
3. D
4. A
5. B

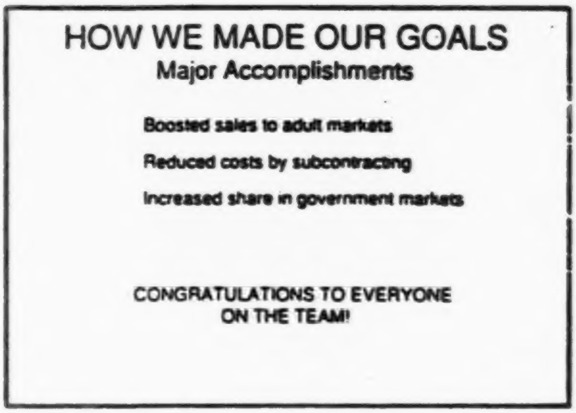
Test Item 019-19.6-02

The student should list five sources where data may be found. Answers may include the following:

1. Government publications
2. Newspapers
3. Magazines
4. Office records
5. Computer printouts
6. Reference books
7. Personal surveys

Test Item 019-19.7-01

Student created chart should look like this:



HOW WE MADE OUR GOALS

Major Accomplishments

Boosted sales to adult markets

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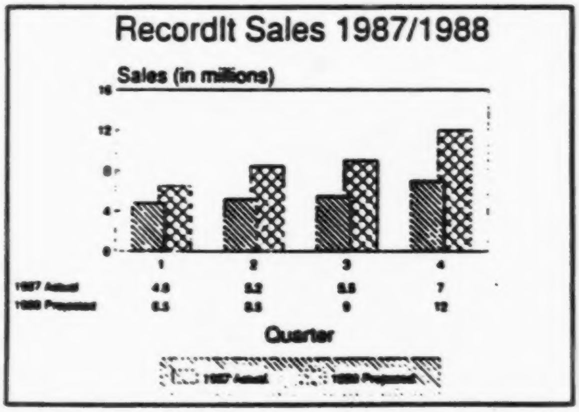
CONGRATULATIONS TO EVERYONE
ON THE TEAM!

Test Item 019-19.7-02

Student created bar chart should look like this:



Test Item 019-19.8-01

Checklist for evaluation of student response:

_____ 1. Memo clearly shows to whom the memo is addressed, the name of the sender, the date, and the subject.

_____ 2. A topic sentence begins the memo.

_____ 3. Ideas are presented in a logical, step-by-step fashion.

_____ 4. Graph types are appropriate for the data shown.

_____ 5. Graphs are placed at appropriate points in the written material.

_____ 6. Each graph is accurate and clear.

_____ 7. A summary statement concludes the memo.

_____ 8. There are no spelling errors.

_____ 9. Pages are numbered.

_____ 10. Overall appearance is neat and professional.

Test Item 019-19.8-02

Checklist for evaluation of student response:

______ 1. The Browns should use **text** charts in their presentation.

______ 2. Chart 1 should be a TITLE chart with name of company, company logo, and owners names.

______ 3. Chart 2 should show LUNCH #1—both contents and price.

______ 4. Chart 3 should show LUNCH #2—both contents and price.

______ 5. Chart 4 should show LUNCH #3—both contents and price.

______ 6. Outline should give a logical, step-by-step presentation of ideas.

______ 7. Notes for the Browns' use will vary but should include:

—details about each of the lunch packages
—opportunity for questions
—summary statement
—thanks for the opportunity to make the presentation

______ 8. Special features that might be used will be limited only by a student's imagination. Some answers might include: a small sample of their cooking to be given to each member; an attractive brochure about the company or a business card given to each member.

PARTIAL LISTING OF REFERENCES
FOR
PRESENTATION GRAPHICS

TEXTBOOKS

McComb, Gordon. **Excutive Guide to PC Presentation Graphics.** Bantam Books 666 Fifth Avenue, New York, NY. 10103. 1988.

SOFTWARE

Click Art Personal Publisher. T-Maker Graphics, 2115 Landings Drive, Mountain View, CA 94043. 1-415-962-0195.

Cricket Presents. Cricket Software, 30 Valley Stream Parkway, Malvern, PA 19355. 1-215-251-9890.

Dazzle Draw. Broderbund Software, 17 Paul Drive, San Rafeals, CA 94903. 1-415-479-0377.

Draw Applause. Decision Resources, Inc., Ashton-Tate Graphics Product Center, 25 Sylvan Road South, Westport, CT 06880.

Freelance Plus. Lotus Development Corporation, 55 Cambridge Parkway, Cambridge, MA 02142.

Full Paint. Ashton-Tate, 20101 Hamilton Avenue, Torrance, CA 90502. 1-213-329-8000.

Graph-in-the-Box. New Enland Software, Greenwich Office Park, Greenwich, CT 06831. 1-800-633-2252.

Graph Plus. Migent, Inc., PO Box 6062, Incline Village, NV 89450.

Graphing Assistant. International Business Machines, Systems Products Division, PO Box 1328, Boca Raton, FL 33432.

Graphics Gallery Collection. Hewlett-Packard, Personal Software Division, 3410 Central Expressway, Santa Clara, CA 95051.

Harvard Graphics. Software Publishing Corporation, 1901 Landings Drive, Mountain View, CA 94039-7210.

Microsoft Chart. Microsoft Corporation, 16011 NE 36th Way, PO Box 97017, Redmond, WA 98073-9717.

More II. Living Videotext, 117 Easy Street, Mountain View, CA 94043. 1-415-964-6300.

PFS: First Graphics. Software Publishing Corporation, 1901 Landings Drive, Mountain View, CA 94039-7210.

Pixie. Zenographics, 19752 MacArthur Boulevard, Suite 250, Irvine, CA 92715.

Power Point. Microsoft Corporation, 16011 NE 36th Way, Box 97017, Redmond, WA 98073-9717. 1-206-882-8080.

Present Slide Presentation System. SMI Services, Inc., 6095 Riverchase Circle N.W., Atlanta, GA 30328.

Publishers Paintbrush. Z-Soft Corporation, 1950 Spectrum Circle, Suite A-495, Marrietta, GA 30067. 1-404-980-1950.

Screenshow. Software Publishing Corporation, 1901 Landings Drive, Mountain View, CA 94039-7210.

Show Partner F/X. Brightbill-Roberts & Company, 120 East Washington Street, Suite 421, Syracuse, NY 13202.

Slide Shop. Scholastic Inc., PO Box 7502, 2931 East McCarty Street, Jefferson City, MO 65102.

Statgraphics. Statiscal Graphics Corp., Five Independence Way, Princeton Corporation Center, Princeton, NJ 08540. 1-609-924-9374.

Storyboard. International Business Machines, Systems Products Division, PO Box 1328, Boca Raton, Fl 33432.

VideoWorks. Broderbund Software, 17 Paul Drive, San Rafael, CA 94903-2101. 1-415-479-0377.

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EVALUATING SOFTWARE

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COMPETENCIES

FOR EVALUATING SOFTWARE

COMPETENCY GOAL 20: The learner will evaluate software programs.

COMPETENCY OBJECTIVES

20.1 Evaluate the suitability of the software for the intended purpose.

20.2 Evaluate the availability and quality of the learning materials accompanying the package.

20.3 Evaluate the compatibility of the software package with current equipment and operating system.

20.4 Evaluate the quality and usefulness of the internal help screens, menus, and function key assignments available in the package.

20.5 Evaluate the quality, availability and cost of vendor and/or publisher support of the package.

STUDENT ACTIVITIES
FOR
EVALUATING SOFTWARE

	Planning Notes
1. Discuss "Shopping for Software."	TM1
2. Prepare a checklist of features and functions which a word processing program should contain for a user who is: (a) A high school student (b) An administrative assistant in a large corporation (c) Owner of a small business	HO1, TM2
3. Prepare a checklist of features and functions which a database management program should contain for a user who is: (a) Secretary/treasurer of a high school FBLA (Future Business Leaders of America) club (b) A local savings and loan bank (c) A county school system	TM2
4. Prepare a checklist of features and functions which an electronic spreadsheet program should contain for a user who is: (a) Supervisor of Testing Services for a school system (b) A high school football or basketball coach (c) A state legislator	HO3
5. Name three national computer magazines which publish software reviews. Using handout 4, complete a table which compares the three magazines.	HO4
6. Using handout 5, present an oral or written report on the *learning aides* provided with a business software program.	HO5
7. Using handout 6, complete the hardware chart for the computer system being used in the classroom.	HO6

SHOPPING FOR SOFTWARE

THE PROGRAM PROVIDES:

- NEEDED FEATURES
- CLEAR DOCUMENTATION
- DEALER/VENDOR SUPPORT
- CORRECT SYSTEM REQUIREMENTS
- REASONABLE PRICE
- GOOD LEARNING MATERIALS

WORD PROCESSING PROGRAMS
(A PARTIAL LISTING OF FEATURES)

- CUT/PASTE TEXT
- CREATE FORM LETTERS
- CALCULATIONS
- FIND/REPLACE
- FILE TRANSFER
- FOOTNOTES
- GRAPHICS
- HEADERS/FOOTERS
- HELP MENUS
- INDEXING
- LASER PRINTER SUPPORT
- MACROS
- MOUSE SUPPORT
- OUTLINING

WORD PROCESSING SOFTWARE CHECKLIST

HO1

(Features and Functions Required by 3 Different Users)

Features and/or Functions	High School Student	Administrative Assistant	Small Business Owner
Type/edit text			
Save, retrieve			
Print			
Find/Replace			
Key word search			
Set margins/tabs			
Cut/Paste text			
Speed/function keys			
Help menus			
Macros			
Create form letters			
Speller/Thesaurus			
File Transfer			
Footnotes			
Graphics			
Indexing			
Laser Printer Support			
Outlining			
Mouse Support			
Calculations			
Uses various fonts			
Headers and footers			

DATABASE MANAGEMENT SOFTWARE CHECKLIST

HO2

(Features and Functions Required by 3 Different Users)

Features and/or Functions	FBLA Secretary	Savings & Loan Bank	County School System
Records per file			
Bytes per record			
Fields per record			
Bytes per field			
Field Types			
Text			
Numeric			
Date			
Time			
Logical			
Memo			
Calculated			
Summary			
Custom Applications			
Custom data formats			
Edit records in tables			
Perform calculations			
Indexing			
Input Data validation			
Use Preprinted forms			
Print Mailing labels			
Columnar reports			
Crosstab reports			
Password protection			
Global update			
Print reports to screen			

541

ELECTRONIC SPREADSHEET SOFTWARE CHECKLIST

(Features and Functions Required by 3 Different Users)

Features and/or Functions	Testing Services Supervisor	High School Football Coach	State Legislator
Maximum number rows			
Maximum number columns			
Windowing			
Macros			
Manual Recalculation			
Auto. Recalculation			
Auto-Save Feature			
Mouse support			
Undo command			
Graphics capability			
Link spreadsheets			
Import 1-2-3 files			
Customize menus			
Search capability			
Sort capability			
Help menus			
Headers/Footers			
Laser printer support			
Cell protection			
File protection			

COMPARISON OF SOFTWARE REVIEWS IN THREE COMPUTER MAGAZINES

	Magazine 1	Magazine 2	Magazine 3
Generally describes the program			
Details many features of the program			
Rates ease of use			
Includes both positive and negative comments			
Review is well-written, and easy to read			
Documentation (including Reference manuals, tutorials and other learning materials are reviewed			
Provides product support information			
Lists name, address and phone number of manufacturer			
Lists system requirements			
Lists suggested retail price			
Lists the components of the software package			
Provides author's name and job title/background			

BUSINESS SOFTWARE LEARNING AIDS

STUDENT REPORT

Present an oral or written report on the *learning aids* provided with a business software program you have used.

Describe and evaluate the **disk-based tutorial:**

(1) Does it give an overview? introductory lessons? thorough training?

(2) Is it error free?

Describe and evaluate the **written tutorial:**

(1) Are instructions logical and easy to follow?

(2) Do pictures of the computer output appear in the text?

(3) Are examples simple and easy to understand?

Is the **user's guide** well organized? Does it give a complete description of the program? Is there an index? a table of contents? a glossary?

Are there **on-line help screens** available within the program? If so, are help screens context related?

Does the package include **keyboard templates** and/or a **quick reference card?** If so, comment on their quality and usefulness.

Be sure to comment on any drawbacks or disadvantages you notice, such as poor organization, missing information, or cryptic error messages.

HO6

COMPUTER SYSTEM HARDWARE CHART

Complete the following hardware chart for the computer system with which you work:

Microcomputer (Make and model) ______________________________

RAM memory capacity ______________________________

Number, size, and capacity of floppy disk drives ______________________________

Graphics adaptor type ______________________________

Monitor type ______________________________

Printer (Make and model) ______________________________

Printer interface (parallel/serial) ______________________________

Operating System (type and version number) ______________________________

Network System ______________________________

Other Hardware ______________________________

Additional interface cards ______________________________

EVALUATE SOFTWARE FOR THE MICROCOMPUTER SYSTEM

PART A

Directions: Based on the needs established in Assignment Sheet #1, visit a reputable microcomputer dealer who sells job-related software or use information collected by class to complete the following software checklist. Give the brand name, type of program, and price of the software being evaluated. Place an "X" in the appropriate column at the right of each statement.

Brand Name ____________________ Type of Program____________________

*Not applicable Price ____________________

General:	Yes	No	*N/A
1. The program provides the desired output using specific data. . .			
2. Sold by a local dealer that provides good service.			
3. Software will operate on present hardware			
4. Price is comparable to similar programs			
5. Program is free from errors			
6. The program can be modified			

Input:	Yes	No	*N/A
1. Single key input where applicable			
2. Cursor or other indicator shows where input is to go			
3. Input can be corrected if necessary before program continues .			
4. Error diagnostics are given when improper data is inputted			
5. The user is in control of the program at all times.			
6. Input can be edited before second run.			

Output:	Yes	No	*N/A
1. The output is in an easy to read and understand format.			
2. Produces output on a printer if desired			

Instructions:	Yes	No	*N/A
1. Documentation is provided in the software package			
2. The program is menu driven			
3. User can skip instructions and return to them when needed . . .			
4. Text is clear and easy to read			
5. Commands are written in simple-to-understand terms.			
6. Uniform terms are used throughout program			
7. Sound and/or music is used effectively			

Software Documentation:	Yes	No	*N/A
1. Provides easy to read "step by step" instructions			
2. Contains a sample set of data with output for use to test program			
3. Contains a tutorial			
4. Provides a list of program commands			
5. Includes features necessary for practical application			

PART B

Directions: Answer the following questions based on the completed checklist.

1. How many questions received a "Yes" answer? ____________________
2. How many questions received a "No" answer? ____________________
3. Would you consider the amount of "Yes" or "No" answers significant in deciding whether to purchase the software? ____________________

   Why? ____________________

4. **Would you purchase the software you have just evaluated?** ____________________

   Why? ____________________

Source: **Introduction to Microcomputer Applications.** Mid-America Vocational Curriculum Consortium. 1984.

EVALUATION MEASURES

FOR

EVALUATING SOFTWARE

COMPETENCY GOAL 20: The learner will evaluate software programs.

OBJECTIVE 20.1: Evaluate the suitability of the software for the intended purpose.

Test Item 020-20.1-01

INSTRUCTIONS TO STUDENTS: Choose the one best word or phrase which completes each of the statements below. Write the letter of your choice in the blank to the left of each statement.

_____ 1. To evaluate software suitability, the user should determine what ____________________ the software should perform in order to fill the intended purpose.
(a) instructions
(b) programs
(c) functions
(d) procedures

_____ 2. To determine software features and capabilities, the user should
(a) ask the software vendor
(b) read the documentation
(c) ask other users
(d) all of the above

_____ 3. When shopping for a software package, the user should prepare a
(a) checklist of desired features
(b) trial document
(c) graph of relative costs
(d) statement of purpose

_____ 4. Software reviews by a computer magazine may be relied upon to
(a) give impartial judgements
(b) give full and complete data on the program
(c) give the editor's point of view
(d) assist the reader in forming opinions

_____ 5. Software which is not custom made for the user
(a) may contain unwanted features
(b) may not contain needed features
(c) may be "customized" by the user
(d) all the above

Test Item 020-20.1-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements about evaluating software suitability. Determine if each statement is true or false. Record the correct response (true or false) in the blank to the left of each statement.

____________ 1. Magazines and newspapers written for computer users provide valuable information about software features and functions.

____________ 2. Software is suitable for a given purpose if it performs the functions needed by the user.

____________ 3. A poor way to determine software suitability is to execute the software (try it out) prior to purchase.

____________ 4. Software documentation is not a good source of information about a program's functions.

____________ 5. Users of a given software package often provide valuable information about its features and functions.

OBJECTIVE 20.2: Evaluate the availability and quality of the learning materials accompanying the package.

Test Item 020-20.2-01

INSTRUCTIONS TO STUDENTS: Read each of the following statements about evaluating software learning materials. Determine if each statement is true or false. Record the correct response (true or false) in the blank to the left of each statement.

____________ 1. A disk-based tutorial should test learners on the use of a certain software program.

____________ 2. Professional software packages should contain either a disk-based tutorial or a written tutorial.

____________ 3. A disk-based tutorial should present all the major features of a software package.

____________ 4. A workbook containing both instruction and exercise material should accompany any good software package.

____________ 5. Step-by-step instructions on how to use each feature of a software program are seldom found in the documentation.

Test Item 020-20.2-02

INSTRUCTIONS TO STUDENTS: Fill in the blanks in the sentences below with the word or phrase which best completes the sentence.

1. A good software package should provide at least one ________________ to assist a user in learning how to use the software.
2. Learning materials accompanying a software package should include written descriptions as well as pictures of computer ____________________.
3. Good quality learning materials should include step-by-step _________________ on how to use each feature of a software package.
4. Good quality disk-based tutorials should offer further _________________ if the user makes an incorrect response.
5. A written tutorial and other learning materials are usually found in the software program's

   ____

OBJECTIVE 20.3: Evaluate the compatibility of the software package with current equipment and operating system.

Test Item 020-20.3-01

INSTRUCTIONS TO STUDENTS: List five (5) hardware features which must be checked to ensure compatibility with software.

1.

2.

3.

4.

5.

550

Test Item 020-20.3-02

INSTRUCTIONS TO STUDENTS: Fill in the blanks in the sentences below with the word or phrase which best completes the sentence.

1. The more features a software program has, the more ________________ the computer system must contain.
2. A professional software program may require so much disk space that the computer system on which it runs must have a ________________ .
3. Software programs must be compaitble with the ____________ (i.e. PRODOS, MS-DOS, Unix).
4. A ________________ adaptor may be required to run desktop-publishing or presentation graphics software.
5. A suitable ________________ , or other input device, may be required for use with drawing or painting programs.
6. In order to be compatible with the printer, a software program must include a special ________________ program.
7. Number and size of ________________ is an important consideration when purchasing software which is to be run from floppy disks.

OBJECTIVE 20.4: Evaluate the quality and usefulness of the internal program help screens, menus, and function key assignments available in the package.

Test Item 020-20.4-01

INSTRUCTIONS TO STUDENTS: Choose the one best word or phrase which completes each of the statements below. Write the letter of your choice in the blank to the left of each statement.

_____ 1. A high-quality software program is usually
(a) colorful
(b) inexpensive
(c) personalized
(d) menu driven

_____ 2. Software programs which use special function keys should include a function key
(a) appendix
(b) template
(c) diagram
(d) definition

_____ 3. A good menu should always contain an entry which will allow the user to
(a) exit from the menu
(b) read entries quickly
(c) delete entries
(d) add entries

_____ 4. In high-quality software, additional information about a particular software function is provided by
(a) a template
(b) the menu
(c) a dot prompt
(d) help screens

_____ 5. In high-quality software, help should be available to the user by means of
(a) a special "help" key
(b) on-screen instructions
(c) a dot prompt
(d) both (a) and (b)

Test Item 020-20.4-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements about evaluating internal program help screens, menus and function key assignments. Determine if each statement is true or false. Record the correct response (true or false) in the blank to the left of each statement.

____________ 1. Help screens in a software program should be related to the particular feature of the program on which you are presently working.

____________ 2. A help screen in a software program should include directions on how to access other help screens.

____________ 3. Help screens should not include information on correct command syntax.

____________ 4. Pull-down menus are a feature of many high-quality software programs.

____________ 5. Multiple function key assignments make a program very difficult to use.

____________ 6. Function key assignments should be consistent with those used in other popular software programs.

OBJECTIVE 20.5: Evaluate the quality, availability and cost of vendor and/or publisher support of the package.

Test Item 020-20.5-01

INSTRUCTIONS TO STUDENTS: Read each of the statements below concerning support available to software users. Using a scale of 1 to 5, rank the statements in order of their relative importance to the user (1 is Most Important, 5 is Least Important). Place the rank number (1, 2, 3, 4, or 5) in the blank to the left of each statement.

_____ 1. A toll-free telephone number is available by which the user can get free assistance from the software publisher.

_____ 2. The software publisher produces a newsletter about company plans for new products.

_____ 3. The local vendor from whom the software was purchased provides free instruction to the user.

_____ 4. The software publisher provides assistance and support to the user only by way of program documentation.

_____ 5. The software publisher provides assistance only by telephone at the user's expense.

Test Item 020-20.5-02

INSTRUCTIONS TO STUDENTS: Read each of the statements below concerning support available to software users. Determine if each statement is true or false. Record the correct response (true or false) in the blank to the left of each statement.

____________ 1. A vendor of high-quality software usually provides free software instructions to customers.

____________ 2. Computer users should purchase software published by companies which provide a toll-free customer assistance line.

____________ 3. Vendors of high-quality software provide customer support for all the software packages they sell.

____________ 4. Software publishers are not in the business of selling instruction; therefore, they do not provide training in the use of their products.

____________ 5. Computer users should purchase software only from companies which offer 24-hour support by telephone.

KEY TO TEST ITEMS
FOR
EVALUATING SOFTWARE

Test Item 020-20.1-01

1. C
2. D
3. A
4. D
5. D

Test Item 020-20.1-02

1. T
2. T
3. F
4. F
5. T

Test Item 020-20.2-01

1. F
2. T
3. T
4. F
5. F

Test Item 020-20.2-02

1. Tutorial
2. Output
3. Instructions
4. Instructions
5. Documentation

Test Item 020-20.3-01

Hardware features—student must include 5 of these:

1. Computer system
2. Color/Monochrome graphics adaptor
3. Monitor type
4. Printer type
5. Main memory amount
6. Floppy disk size and number
7. Hard disk requirement
8. Type of mouse or other input device
9. Special output device

Test Item 020-20.3-02

1. Main memory
2. Hard/Fixed disk
3. Operating system
4. Graphics or Color graphics
5. Mouse
6. Printer driver
7. Disk drives

Test Item 020-20.4-01

1. D
2. B
3. A
4. D
5. D

Test Item 020-20.4-02

1. T
2. T
3. F
4. T
5. F
6. F

Test Item 020-20.5-01

1. 2
2. 5
3. 1
4. 4
5. 3

Test Item 020-20.5-02

1. F
2. T
3. F
4. F
5. F

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TABLE OF CONTENTS
FOR
APPROPRIATE WORK HABITS

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COMPETENCIES
FOR
APPROPRIATE WORK HABITS

COMPETENCY GOAL 21: The learner will identify and exhibit appropriate work habits.

COMPETENCY OBJECTIVES

21.1 Exhibit cooperation with co-workers and accept constructive criticism.

21.2 Display appropriate attention to details in work.

21.3 Plan and organize work by setting priorities for performing job tasks.

21.4 Idenify and follow classroom standards and procedures.

STUDENT ACTIVITIES
FOR
APPROPRIATE WORK HABITS

	Planning Notes
1. Discuss the importance of good work habits.	TM1
2. Describe ways to interact with those to whom you report.	
3. Identify ways of working cooperatively with others.	TM2
4. Define the terms: interpersonal communication, feedback, constructive criticism, and attitude.	TM3
5. Explain how attitude influences working relationships.	
6. Explain how to cope effectively with others under stressrul conditions.	
7. Discuss how to set priorities in the office.	TM4, TM5, TM6
8. Discuss the importance of knowing rules and regulations.	TM7
9. Discuss classroom standards and procedures that a teacher could use in developing appropriate work habits among students. Discuss how employers can also develop office standards and procedures.	HO1, TM8

CLASSROOM STANDARDS AND PROCEDURES

Rule 1. Bring all needed materials to class.

This rule can be helpful because emphasizes that students must be prepared for each class period. It is important for students to know exactly what they are expected to bring to class in order for this rule to be followed. Thus, students should know whether to bring a pen or pencil, paper, notebook, or folder; and if more than one textbook is used in the class, which textbook. If the materials vary (such as a notebook being required on one day but not another), then some system will be needed to signal this to students. If possible in such cases, the teacher should develop a routine such as having students bring certain materials on particular days of the week (for example, "Spellers" on Thursday) or having students copy into their notebooks on Monday alist of materials needed for each day that week.

Rule 2. Be in your seat and ready to work when the bell rings.

Included under this rule may be procedures such as: (a) pencils should be sharpened before the bell rings; (b) paper and pens should be out and ready for work (including heading); and (c) warm-ups or other opening activities are to be started as soon as possible after entering the room.

Rule 3. Respect and be polite to all people.

Included under this rule are listening carefully when the teacher or a student is speaking and behaving properly for a substitute teacher. Some "don'ts" include fighting, name calling, bothering, and so on.

Rule 4. Do not talk or leave your desk when someone else is talking.

This rule addresses two students behaviors that, if unregulated, can become sources of widespread misconduct. Rule 4 is actually a more specific but less inclusive variation of rule 3. Because it is clearly stated, the rule requires little interpretation for students to understand it.

Rule 5. Respect other people's property.

This rule may include guidelines such as: (a) keep the room clean and neat; (b) pick up litter; (c) return borrowed property; (d) do not write on the desks; and (e) do not use another person's things without permission.

Rule 6. Obey all school rules.

This is a useful rule to include because it reminds students that school rules apply in your classroom as well as out of it. It also suggests that you will monitor their behavior in the areas covered by the school rules. Finally, including it in your rules gives you an opportunity to discuss whatever school rules are pertinent to your classroom.

APPROPRIATE WORK HABITS

ATTITUDES THAT LEAD TO GOOD WORK HABITS

Ethics
Loyalty
Confidentiality
Responsibility
Cooperation
Flexibility
Punctuality
Reliability
Honesty
Efficiently
Planning and organization
Showing initiative

APPROPRIATE WORK HABITS

HUMAN RELATION SKILLS

Your relationships with people
Understanding yourself
Working with your peers
Dealing with customers
Working with your supervisor
Working as a team member
Understanding group dynamics
Working with quality circle
Handling criticism
Coping with conflict

APPROPRIATE WORK HABITS
DEFINITIONS

Interpersonal skills — skills that involve the attitudes and communication techniques that help you get along with others.

Feedback — communication when the sender and the receiver discuss the message.

Constructive criticism — valid suggestions evaluating behavior or finding fault.

Attitude — a way of thinking, acting or feeling, or behavior of a person toward a situation or cause.

APPROPRIATE WORK HABITS

PLANNING YOUR WORK DAY

Analyze your tasks
Make lists
Set priorities
Study your instructions
Establish deadlines
Group tasks

APPROPRIATE WORK HABITS

MAKING A PLAN

Remember your time limits
Set milestones
Expect the unexpected
Make use of slow times

APPROPRIATE WORK HABITS

COPING WITH OVERLOAD

- — Concentrate on one task at a time
- — Follow your priorities
- — Eliminate unnecessary work
- — Review your work habits
- — Ask for help
- — Talk to your supervisor

APPROPRIATE WORK HABITS

KNOW THE RULES

COMPANY HANDBOOKS

- Rules
- Policies

TM8

APPROPRIATE WORK HABITS

CLASSROOM STANDARDS AND PROCEDURES

Rule 1. Bring all needed materials to class.
Rule 2. Be in your seat and ready to work when the bell rings.
Rule 3. Respect and be polite to all people.
Rule 4. Do not talk or leave your desk when someone else is talking.
Rule 5. Respect other people's property.
Rule 6. Obey all school rules.

EVALUATION MEASURES

FOR

APPROPRIATE WORK HABITS

COMPETENCY GOAL 21: The learner will identify and exhibit appropriate work habits.

OBJECTIVE 21.1: Exhibit cooperation with co-workers and accept constructive criticism.

Test Item 021.1-01

INSTRUCTIONS TO STUDENTS: Fill in the blank (s) with the appropriate word or phrase.

1. ________________ is the art of getting along with others and working cooperatively.
2. In the office, the other members of your team are ________________ , ________________ , ________________ in other departments.
3. The four steps you can take to respond constructively to criticism are:
   1.
   2.
   3.
   4.
4. List the three causes of conflict in the office: ____________ , ______________ , ____________________ .
5. You should continue to do a good job for a critical supervisor as a matter of ____________________ —not to please the supervisor.

Test Item 021.1-02

INSTRUCTIONS TO STUDENTS: Prepare a brief response to the following two paragraph case.

Sherri asks you to help her complete a report for Mr. Stuart. You agree to prepare several charts while Sherri finishes keying the report. You were under considerable pressure and you did not proofread your work before giving it to Sherri.

After the report and charts are submitted, Mr. Stuart discovers errors in the charts. He points out the errors to Sherri and asks her to proofread more carefully. Since your work station and Sherri's are side by side you hear Mr. Stuart's remarks. What should you do or say? Why?

OBJECTIVE 21.2: Display appropriate attention to details in work.

Test Item 021.2-01

INSTRUCTIONS TO STUDENTS: Read the following paragraph. Note that there are several misspelled words in the paragraph. Prepare a copy of the paragraphs, making the necessary spelling corrections. Underline your corrections.

> Marsha is an efficient worker with a pleasant personality. She willingly accepts responsability and is able to follow through. She listens well to instructions and asks intelligent questions. Marsha posesses good technical skills as well as common sense. I particularly appreciare being able to trust her completely with confadental information.
>
> Marsha also enteracts well with co-workers. She is able to impathise with people and encourage them. Her actions, her appropriate business attire, and her desire to maintain compateble working relationships with co-workers reflect her positive atatud towards work. I believe Marsha Harris will be an excellent employee.

OBJECTIVE 21.3: Plan and organize work by setting priorities for performing job tasks,

Test Item 021.3-01

INSTRUCTIONS TO STUDENTS: PART I. Using the form provided, list four task you must perform between now and this time tomorrow. Include homework, household tasks, afterschool work or meetings and social events. Give them ratings: A for tasks you must do, B for those you should do, and C for those that are not necessary but that you would like to do. Establish deadlines for the tasks when appropriate. Indicate in writing which tasks, if any, you can group to save time.

Analyzing Tasks

Task	Rating	Deadline

PART II. Using the list prepared in Analyzing Tasks, prepare a written plan for the next 24 hours. You must list at least six activities. Include time for sleep and meals. Put an (X) next to those activities you could postpone if something unexpected happened. Write down what you might do with any time you have when there is nothing you must do. Return PARTS I AND II during the next class meeting. **Checklist will be used to grade your work.**

Making a Plan

Activity	Time	Postpone?

Leftover time: ______________________________

Source: **The Electronic Office: Managing Your Productivity.** Gregg Division/McGraw-Hill Publishing Co., 1988.

Test Item 021.3-02

INSTRUCTIONS TO STUDENTS: Write a brief response to each of the following questions:

1. How is planning different from daydreaming?
2. List five steps you should follow in analyzing your tasks before planning your workday.
3. How can setting milestones help you with large projects?
4. Why should your plan for a workday be flexible?
5. List three ways of dealing with an overload of work?

OBJECTIVE 21.4: Identify and follow classroom standards and procedures.

Test Item 021.4-01

INSTRUCTIONS TO STUDENTS: Schools have written rules as do firms and companies. Using the following form, **Classroom Standards and Procedures,** answer questions 1-5 about the rules.

1. Which rules are easier to learn?
2. How can the unwritten rules be discovered?
3. Who makes the written rules? the unwritten rules?
4. Are the consequences for violating a written rule worse than for violating an unwritten rule? Why?
5. Do you think school's written and unwritten rules are the same as those of a business firm or other workplace? Explain.

Rule 1. Bring all needed materials to class.

This rule can be helpful because it emphasizes that students must be prepared for each class period. It is important for students to know exactly what they are expected to bring to class in order for this rule to be followed. Thus, students should know whether to bring a pen or pencil, paper, notebook, or folder; and if more than one textbook is used in the class, which textbook. If the materials vary (such as a notebook being required on one day but not another), then some system will be needed to signal this to students. If possible in such cases, the teacher should develop a routine such as having students bring certain materials on particular days of the week (for example, "Spellers" on Thursday) or having students copy into their notebooks on Monday a list of materials needed for each day that week.

Rule 2. Be in your seat and ready to work when the bell rings.

Included under this rule may be procedures such as: (a) pencils should be sharpened before the bell rings; (b) paper and pens should be out and ready for work (including heading); and (c) warm-ups or other opening activities are to be started as soon as possible after entering the room.

Rule 3. Respect and be polite to all people.

Included under this rule are listening carefully when the teacher or a student is speaking and behaving properly for a substitute teacher. Some "don't" include fighting, name calling, bothering, and so on.

Rule 4. Do not talk or leave your desk when someone else is talking.

This rule addresses two students behaviors that, if unregulated, can become sources of widespread misconduct. Rule 4 is actually a more specific but less inclusive variation of rule 3. Because it is clearly stated, the rule requires little interpretation for students to understand it.

Rule 5. Respect other people's property.

This rule may include guidelines such as: (a) keep the room clean and neat; (b) pick up litter; (c) return borrowed property; (d) do not write on the desks; and (e) do not use another person's things without permission.

Rule 6. Obey all school rules.

This is a useful rule to include because it reminds students that school rules apply in your classroom as well as out of it. It also suggests that you will monitor their behavior in the areas covered by the school rules. Finally, including it in your rules gives you an opportunity to discuss whatever school rules are pertinent to your classroom.

KEY TO TEST ITEMS
FOR
APPROPRIATE WORK HABITS

Test Item 021.1-01

1. Human relations
2. Supervisors, peers, workers
3. Listen carefully, evaluate the criticism, change behavior, forget it
4. Simple disagreements, jealousy, misunderstanding, prejudice, inability to accept people who behave differently.
5. Professional pride

Test Item 021.1-02

It is not right to permit a co-worker to be blamed for your mistakes. Take responsibility for your work immediately by saying, for example, "Mr. Stuart, I prepared the chart, I should have taken the time to proofread throughly. I will make the corrections right away." Sherri will appreciate your response.

Test Item 021.2-01

Marsha is an **efficient** worker with a pleasant personality. She willingly accepts **responsibility** and is able to follow through. She listens well to instructions and asks **intelligent** questions. Marsha **possesses** good technical skills as well as common sense. I particularly appreciate being able to trust her **completely** with **confidential** information.

Marsha also **interacts** well with co-workers. She is able to **emphasize** with people and encourage them. Her actions, her **appropriate** business attire, and her desire to maintain **compatible** working relationships with co-workers reflect her positive **attitude** towards work. I believe Marsha Harris will be an **excellent** employee.

Test Item 021.3-01

Checklist

Analyzing Tasks	Yes	No
1. Are all items complete?		
2. Is form legible?		

Checklist

Making A Plan	Yes	No
1. Are all items complete?		
2. Is form legible?		

Test Item 021.4-01

1. Answering the questions about school rules should help students understand the values of learning unwritten rules, as well as written rules. The written rules are always easier to follow because they are precise and to the point.
2. Unwritten rules are often discovered by accident or through the "grapevine".
3. Written rules are made by designated administrators, faculty, and student representatives. Unwritten rules are sometimes made by "Seniors" and other upperclassmen.
4. Yes. Violating a written rule is just like breaking a law. Students must suffer the consequences.
5. Yes.

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COMPETENCIES

FOR
SEEKING EMPLOYMENT

COMPETENCY GOAL 22: The learner will identify and develop necessary skills and techniques to be used in seeking employment.

COMPETENCY OBJECTIVES

22.1 Develop interviewing skills that will enable the applicant to be considered for a job.

22.2 Complete a job application form correctly and legibly.

22.3 Develop a resume.

STUDENT ACTIVITIES
FOR
SEEKING EMPLOYMENT

	Planning Notes
1. Discuss the importance of correct procedures for seeking employment	
2. Define a resume.	TM1
3. Discuss the parts of a resume.	TM2
4. Prepare a resume using appropriate software.	
5. Discuss do's and don'ts of interviewing.	HO1, HO2, HO3.
6. Discuss kinds of questions that are asked in an interview.	HO4.
7. Discuss job rights as related to interviewing.	HO5. Also, **The Job Seeker's Guide.**
8. Simulate a job interview.	
9. Discuss methods of seeking employment; e.g., classified ads, teachers, industry/education coordinator, etc.	See **The Job Seeker's Guide.**
10. Discuss the importance of a cover letter.	See **The Job Seeker's Guide.**
11. Identify the parts of a cover letter.	
12. Compose a cover letter using appropriate software.	
13. Discuss procedures for filling out a job application.	See **The Job Seeker's Guide.**
14. Fill out a job application.	HO6, HO7.
15. Describe appropriate dress for men and women in the office environment.	See **Dress Right for Business.**

Before the Interview

Learn about the company and its operation. You will impress the interviewer if it's obvious you have done some homework—and it will also help you develop some good questions to ask. To get this background information, ask current or past employees you may know, call the company and request a copy of the firm's annual report or promotional brochure, or go to the library and ask the librarian to help you find some information on the company.

Prepare answers to typical interview questions.

Memorize the name of the person who will interview you.

Be sure you know the route and time of travel to the interview site.

Do not forget the interview date and time.

Decide what you will wear, get your outfit ready and allot enough time for proper grooming before the interview.

Get a good night's sleep the night before.

Absolutely, positively arrive on time (or even better, a few minutes early.) Never keep the interviewer waiting.

During the Interview

Start it off like a winner—with a firm handshake (no deadfish handgrips), a pleasant smile, and a positive, confident attitude.

Listen attentively to the interviewer and look at him or her directly. Sit up straight and do not let your eyes wander elsewhere. But also try to relax. Do not turn the session into a stiff-backed staring contest.

Speak clearly, using good grammar and a friendly tone. Never merely murmur a simple "yes" or "no" to questions; neither should you ramble on and on.

Be positive and enthusiastic. Steer clear of whining or griping about your experiences and show geniune interest in the job. Remember, like or not, this is a personality contest and you want to outshine the next person who comes through that door. No matter how sterling your credentials are, you will not be hired if the interviewer does not like you.

Ask pertinent questions about the job and the company. Find out about the job duties, who you will report to, opportunities for promotion, the firm's growth plans, etc.

Watch for cues that the interview is over. Do not linger. Stand up, thank the interviewer for his or her time and shake hands firmly. Do not forget to express interest in being hired—go ahead and ask for the job. Say that you are impressed with the company and would like to work there.

After the Interview is Over

The next day, write the interviewer a brief note reiterating your interest in the job. Spell his or her name (and the company's name) correctly.

If you have not heard from the interviewer within two weeks, call him or her to relay a polite reminder that you are still interested in the job. Ask when the company plans to make a hiring decision.

If you are not hired, do not despair. Get geared up for your next interview. After all, the more interviews you tackle, the more polished you will become. With a little persistence and the right "packaging," a good job will soon come your way.

DO' S AND DON'TS FOR INTERVIEW DRESSING

Do's

Do dress conservatively in clothing that would be appropriate for the job you want. When in doubt, dress somewhat better than what may be expected at work. Select attire that looks responsible and shows respect for the interviewer and the company.

Do wear moderate styles. Stay with solid, muted colors and crisp, good-quality fabrics.

Do practice good grooming. Look freshly showered and shaved.

Do have clean, combed and neatly styled hair.

Do wear dark-colored, well-shined shoes.

Do have clean hands with trimmed nails.

Don'ts

Don't wear soiled, torn, wrinkled or ill-fitting clothing.

Don't wear sloppy jeans, t-shirts, sweatshirts or sneakers.

Don't sport an extreme hairstyle if you expect to be treated as a serious candidate for the job.

Don't slouch with your hands shoved in pockets. Use good posture and an open, friendly stance.

Don't arrive wearing sunglasses, gaudy jewelry or heavy cologne.

Don't show up with a scowling face—a smile will win 'em over.

OTHER HELPFUL HINTS

# 1. Remember: You never get a second chance to make a first impression. Be at your best from the beginning.

# 2. Have a resumé prepared. This is a brief outline of your background and your previous work experience.

# 3. Dress neatly. Smile.

# 4. Be on time (a few minutes early is better).

# 5. Use a "firm" handshake—not a "bone crusher" and not a "dead fish"—but firm.

# 6. Do not smoke during the interview.

# 7. Practice direct eye contact during the interview—especially when you are listening to the interviewer.

# 8. Listen carefully. Wait until the interviewer is finished with his/her question or comment. Do not be too quick to respond.

# 9. Let the interviewer set the pace. If he/she is in a hurry, you may be forced into a rapid interview pace. If he/she is slow and deliberate, you should be also.

#10. Avoid any reference to personal problems. Your attitude should be: "I have no problems that will affect my work here. Nothing will interfere with my ability to do this job the best it's ever been done."

#11. Learn as much as you can about the company and the interviewer beforehand. An applicant who takes the time to investigate the employer is always more impressive than one who does not.

#12. Remember this: Success in anything you do is almost always preceded by a disappointment or two.

TYPICAL INTERVIEW QUESTIONS

1. How would you describe yourself?
2. What special preparation do you have that relates to the qualifications required for this position?
3. What experiences have you had that you feel would be an asset in this position?
4. What is your greatest strength? Your greatest weakness?
5. Which is more important to you: the money or the type of job?
6. What are your career goals.
7. What have you learned from your mistakes?
8. What have you done that shows initiative?
9. Would you rather do a job, design it, evaluate it, or manage others doing it?
10. What do you know about our company?
11. What can you do for our company?
12. What people have influenced your life? How?
13. Why do you want to leave your present job?
14. What techniques or approaches would you use in building work relationships with co-workers, students, and the community?
15. Have you had any human relations difficulties at any previous place of employment?
16. Do you consider yourself to be effective in working with other people?
17. How do you spend your leisure time?
18. What makes you think that you are qualified to work for our company?

JOB RIGHTS: WHAT MAY AND MAY NOT BE ASKED ON APPLICATIONS OR DURING INTERVIEWS

With the passage of the Civil Rights Act of 1964, the Equal Employment Opportunity Act of 1972, and other federal and state laws relating to non-discrimination in employment, many questions that had commonly appeared on application forms or arose during the job interview are not considered discriminatory or may result in discriminatory hiring.

Generally, questions pertaining to race, religion, color, national origin, sex, age, medical history or marital status are objectionable since denial of employment on this basis, except in the case of a bona fide occupational qualification, is illegal. Most questions on application forms and during job interviews should be related to measuring the ability of the person to perform the job. An excellent model is form PLD-1, the employment application form used by state agencies.

The following is a general guide, by topic, to questions that can and cannot be asked on application forms or during interviews.

Race and National Origin

The subject of race, color or ethnic affiliation cannot be asked on an application form or during an employment interview. An employer may not inquire into the national origin of an applicant, the birthplace of an applicant or the applicant's parents. Questions on what is the applicant's "mother language" are also objectionable.

Religion

The applicant cannot be questioned as to his or her religious denomination, religious affiliations, church, parish, pastor, or religious holidays observed. An applicant may not be told, "This is a Catholic, Protestant, Jewish, etc. organization." An applicant, however, may be asked if his/her observed sabbath and religious holidays would create a conflict with the firm's established workweek.

Sex and Marital Status

A pre-employment inquiry on an application form as to the sex of the applicant is unlawful. Other questions that cannot be asked are: "Are you married?," "Where does your spouse work?," "What are the ages of your children, if any?"

Age

An applicant may not be asked his/her age or the date of birth. Jobseekers may be asked if they are between 18 and 65 years of age; if the applicant is not between these years, then he/she must supply his/her age.

Handicaps

Employment applicants cannot be asked if they have a disability or handicap, nor can they be asked if they have been treated for a list of specific diseases. Inquiries into the medical background of an applicant's family are also unlawful. An employer, however, may ask a question such as "Do you have any disability, physical or mental, which would interfere with your ability to perform the job duties of the position for which you have applied?"

Name

Jobseekers may not be asked if they have ever worked under another name, nor may there be an inquiry into the "maiden name"of a married woman. Employers may ask if the applicant has worked for their company under a different name, and may ask if there is any information relative to a change of name, use of an assumed name, or nickname necessary to enable a check on the applicant's work record.

Photographs

It cannot be required that an applicant affix a photograph to a resume or application form at any time before being hired.

Citizenship

Applicants may be asked if they are citizens of the United States. If not, they may be asked if they have the legal right to remain in the United States permanently. Applicants may not be asked what country other than the U.S.A. they are a citizen of, or whether an applicant is a naturalized or a native-born citizen of the U.S. Questions as to the citizenship of parents or spouse are also not allowed.

Languages

An employer may inquire into languages an applicant speaks, writes and reads fluently. They may not inquire into how the applicant acquired the ability to read, write or speak a foreign language.

Arrests and Convictions

Jobseekers may not be discriminated against on the basis of arrest records in the absence of business necessity.

Children and Other Relatives

Questions on the name, address, age, number, or any other information concerning an applicant's children or other relatives not employed by the company are not allowed. Inquiry may be made into the names of an applicant's relatives who are employed by the company.

Organizations

An employer **may** ask if the applicant is a member of any clubs, organizations, etc., excluding organizations which indicate the race, creed, color, sex or national origin of its members. However, an applicant cannot be asked to list all the clubs, societies and lodges to which he or she belongs.

If You Have a Problem

If you have a problem with questions on an application form or that occur during an interview that you feel are discriminatory under these general guidelines, there are solutions. If a employer were to ask, for example, about the ages of your children (if any) or ask if you were over 40, a possible response would be to point out, diplomatically, that your age or that of your children do not bear on your qualifications to the job. This type of assertive answer may score points with the employer and, at the same time, close the field of inquiry.

If an employer persistently asks questions that do not bear on job qualifications but on race, sex, age or any of the preceding topics, and if diplomatic answers do not put the employer off the topic, then you may have the basis for a human rights complaint. Complaints against offending employers should be filed with the Equal Employment Opportunities Commission.

EMPLOYMENT APPLICATION WORKSHEET HO6

Texas American Bank & Trust Company

Dallas, Texas 77000

APPLICATION FOR EMPLOYMENT

Equal Opportunity Employer

This bank does not discriminate in hiring or employment on the basis of race, religion, color, sex, age, handicap or national origin, and encourages the employment and advancement of disabled veterans and veterans of the Vietnam era in all levels of employment.

(PLEASE PRINT)

Date of Application ______________

Position(s) Applied For ______________

Referral Source: ☐ Advertisement ☐ Friend ☐ Relative ☐ Walk-In

☐ Employment Agency ☐ Other ______________

Personal

Last Name First Middle | Social Sec Number

Are you 16 17 18 70 years old

Present Address Street Name & No Apt City State Zip

Previous Address Street Name & No Apt City State Zip

If you are not a U S Citizen, state type of Visa you have Visa No

Were you previously employed by our bank? ☐ No ☐ Yes If so, when and in what position?

Have you ever applied to our bank before ☐ No ☐ Yes If so, when?

Are you related to anyone employed by us ☐ No ☐ Yes

If yes, give their name and relationship

Job Requirements

Type of work desired (be specific) Minimum salary required

Will you work any location? ☐ No ☐ Yes If no, specify locations you will work at ______________

Will you work overtime? ☐ No ☐ Yes State any limitations on your working hours ______________

Will you consider working evenings? ☐ No ☐ Yes (special circumstances) ______________

Will you consider working weekends? ☐ No ☐ Yes (special circumstances) ______________

Employment desired ☐ Full-time ☐ Part-time ☐ Temporary ☐ Summer Date available for employment ______________

Education and Training

Name	LOCATION	Major course or subject	Circle last year completed	If graduated, mo. and yr	Degree
High School			1 2 3 4		
Technical School			1 2 3 4		
College			1 2 3 4		
Graduate School			1 2 3 4		
Other			1 2 3 4		

Honors Received:

Are you planning to pursue further studies? ☐ Yes ☐ No ☐ Day School ☐ Night School	If yes, when, where and what courses?

Indicate by months or years the training or experience you have had in the following

Addressograph	Key Punch kph	Shorthand wpm
Calculator	10 Key Adding Maching	Speedwriting wpm
Cash Register	P B X	Teller
Computer	Proof Machine	Typing wpm
Dictaphone		

State any additional information you feel may be helpful to us in considering your application.

Employment Experience

Start with your present or last job. Include military service assignments and volunteer activities. Exclude organization names which indicate race, color, religion, sex or national origin.

1	Employer	Telephone ( )	Dates Employed		Work Performed
			From	To	
	Address				
	Job Title		Hourly Rate/Salary		
			Starting	Final	
	Supervisor				
	Reason for Leaving				
2	Employer	Telephone ( )	Dates Employed		Work Performed
			From	To	
	Address				
	Job Title		Hourly Rate/Salary		
			Starting	Final	
	Supervisor				
	Reason for Leaving				
3	Employer	Telephone ( )	Dates Employed		Work Performed
			From	To	
	Address				
	Job Title		Hourly Rate/Salary		
			Starting	Final	
	Supervisor				
	Reason for Leaving				
4	Employer	Telephone ( )	Dates Employed		Work Performed
			From	To	
	Address				
	Job Title		Hourly Rate/Salary		
			Starting	Final	
	Supervisor				
	Reason for Leaving				

If you need aditional space, please continue on a separate sheet of paper.

Special Skills and Qualifications

Summarize special skills and qualifications acquired from employment or other experience

General Information

Military Service Date of Entry __________ Date of Discharge __________

Do you wish to be considered under the Bank's Affirmative Action program for Disabled Veterans and Veterans of the Vietnam Era? ☐ No ☐ Yes

Do you wish to be considered under the Bank's Affirmative Action Program for the Handicapped? ☐ No ☐ Yes

Have you ever been convicted of a felony or a breach of trust? ☐ No ☐ Yes

If yes, state offense, date, court, location, and disposition of case __________

Hobbies __________

Applicant's Statement

I hereby certify that the statements I have made on this application are, to the best of my knowledge and belief, true and complete. I am aware that any misleading or inaccurate information will render this application void, and if employed, will be cause for immediate discharge. I hereby authorize investigation of all statements I have made in this application and consent to my previous employers' providing the Bank with any relevant information necessary to arrive at an employment decision.

I understand that if employed, I will be on probation for a period of ninety days, and that as an employee, I may be called upon for permission to be searched or to take a lie detector or similar test to explain certain transactions and events. Also, if employed, I will comply with all rules and regulations as set forth in the Bank's policy manual or other communications distributed to all employees. I understand that my employment with the Bank is conditioned upon favorable health evaluation, credit report, and past employment references.

Application Date __________ Applicant's Signature __________

This application void after thirty (30) days, unless renewed by the applicant.

for personnel Department Use Only

Arrange Interview ☐ Yes ☐ No

Remarks __________

INTERVIEWER DATE

Employed ☐ Yes ☐ No Date of Employment __________

Job Title __________ Hourly Rate/ Salary __________ Department __________

By __________

NAME AND TITLE DATE

EMPLOYMENT APPLICATION CHECKLIST

YES	NO	
______	______	Did you read the entire application carefully before filling it out?
______	______	Did you check the application three times for accuracy?
______	______	Did you fill in *all* the spaces requested or put a dash (–) or not applicable (NA)?
______	______	Did you make sure there were no misspellings, smears, smudges, or factual errors?
______	______	Did you attach (staple) a copy of your resume to the application?
______	______	Are you happy with the way the application looks?
______	______	Did you *print* the information neatly?
______	______	Did you put checkmarks (✔) where called for and X's (X) where called for?
______	______	Did you take your time when you filled out the application?
______	______	Did you stop and think that the way your applciation "looks" tells employers what kind of work habits you have?
______	______	Did you stop and think that employment applications are a test to see how well you can follow directions?
______	______	Did you use a pen or felt tip that writes without smearing?
______	______	Were you completely honest?
______	______	Did you read the instructions for *each* section before you filled it in?
______	______	Did you check to make sure that the names, addresses and phone numbers of your references were correct?

PARTS OF A RESUME

Name
Career Goal
Personal Information
- Address
- Telephone number

Work Experience
- Part-time
- Summer
- Volunteer

Education
Extracurricular Activities
References
(Furnished upon request)

EVALUATION MEASURES

FOR
SEEKING EMPLOYMENT

COMPETENCY GOAL 22: The learner will identify and develop necessary skills and techniques to be used in seeking employment.

OBJECTIVE 22.1: Develop interviewing skills that will enable the applicant to be considered for the job.

Test Item 022.1-01

INSTRUCTIONS TO STUDENTS: Read each of the following statements about the employment interview. Determine if each statement is true or false. Record the correct response (true or false) in the blank to the left of each statement.

________ 1. The first step in the job-hunting process is to prepare a resume.

________ 2. A personal inventory involves an honest listing of your job skills.

________ 3. The school placement counselor, friends and relatives, newspaper advertisements, specialized publications, and employment agencies are all suitable sources of information about jobs and entry-level job applicant might be able to fill.

________ 4. To make an informed, intelligent application for employment, a job applicant needs to know as much as possible about the company to which he/she is applying for a job.

________ 5. A job applicant must never select more than one company to which he/she will apply for a job.

________ 6. A job skill inventory is a complete listing of the job skills an applicant has to "sell" to an employer.

________ 7. One good source of information about a company to which a job applicant is applying is the local chamber of commerce.

________ 8. A resume is essential when applying for a job; a letter of application to accompany the resume is not essential.

________ 9. There is only one "right" format for a resume.

________ 10. References should be included in a resume.

________ 11. An application letter would be complete if it:
- Identifies the job
- Relates applicant's background to the employer's needs
- Refers to enclosed resume

________ 12. Job skills are important during a job interview; dress and grooming are not important.

________ 13. When completing an application for employment, an applicant should answer every question and complete every statement.

________ 14. Only the open-ended interview is currently being used by prospective employers.

________ 15. Proper preparation is the key to success on a job interview.

________ 16. Evaluation is the final step in the job-hunting cycle.

Test Item 22.1-002

INSTRUCTIONS TO STUDENTS: In the answer column, write the letter of the term that best matches the definition or statement.

Answer

a. appearance
b. blue jeans
c. cooperativeness
d. employment file
e. follow-up
f. interviewer
g. national origin
h. personality tests
i. role playing
j. using eye contact

________ 1. the person who interviews you
________ 2. an important quality for employees of a large company to have
________ 3. questions about this are illegal in an interview
________ 4. makes a lasting impression in an interview
________ 5. inappropriate dress for an interview
________ 6. practicing responses to questions you might be asked in an interview
________ 7. looking at the interviewer as you listen to and answer questions
________ 8. sometimes given to determine whether an applicant is suited to the type of position being applied for
________ 9. after the interview, you should make notes about the interview and add them to this
________ 10. a thank-you to the interviewer for talking with you

Source: **The Employment Interview**, MPC Publishers, 1984.

Test Item 022.1-03

INSTRUCTIONS TO STUDENTS: Complete each of the following statements by writing the correct word or words in the space provided.

1. Experience has shown that the more ________________ applicants are for interviews, the less fearful they are.

2. In an interview, it is your responsibility to present your abilities in terms of the company's ______________.

3. Preparing a list of ______________ shows the interviewer you have taken the time to prepare for the interview and that you are interested in a position.

4. Asking questions about ______________ may indicate to the interviewer that you are more interested in money than in the job.

5. Any questions requiring answers that could be used to discriminate against an applicant are ______________ .

OBJECTIVE 22.2: Complete a job application form correctly and legibly.

Test Item 022.2-01

INSTRUCTIONS TO STUDENTS: Correctly and legibly fill out the following application for employment.

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APPLICATION FOR EMPLOYMENT

(PRE-EMPLOYMENT QUESTIONNAIRE) (AN EQUAL OPPORTUNITY EMPLOYER)

PERSONAL INFORMATION

DATE

NAME LAST FIRST MIDDLE

SOCIAL SECURITY NUMBER

PRESENT ADDRESS STREET CITY STATE ZIP

PERMANENT ADDRESS STREET CITY STATE ZIP

PHONE NO

ARE YOU 18 YEARS OR OLDER Yes ☐ No ☐

SPECIAL QUESTIONS

DO NOT ANSWER **ANY** OF THE QUESTIONS IN THIS FRAMED AREA UNLESS THE EMPLOYER HAS **CHECKED A BOX PRECEDING** A QUESTION, THEREBY INDICATING THAT THE INFORMATION IS REQUIRED FOR A BONA FIDE OCCUPATIONAL QUALIFICATION, OR DICTATED BY NATIONAL SECURITY LAWS, OR IS NEEDED FOR OTHER LEGALLY PERMISSIBLE REASONS

☐ Height ______ feet ______ inches

☐ Citizen of U.S. ____ Yes ____ No

☐ Weight ______ lbs.

☐ Date of Birth* ______________

☐ What Foreign Languages do you speak fluently? ______________ Read ______ Write ______

☐ ______________________________

*The Age Discrimination in Employment Act of 1967 prohibits discrimination on the basis of age with respect to individuals who are at least 40 but less than 70 years of age

EMPLOYMENT DESIRED

POSITION

DATE YOU CAN START

SALARY DESIRED

ARE YOU EMPLOYED NOW?

IF SO MAY WE INQUIRE OF YOUR PRESENT EMPLOYER?

EVER APPLIED TO THIS COMPANY BEFORE?

WHERE?

WHEN?

LAST

FIRST

MIDDLE

EDUCATION	NAME AND LOCATION OF SCHOOL	*NO. OF YEARS ATTENDED	*DID YOU GRADUATE?	SUBJECTS STUDIED
GRAMMAR SCHOOL				
HIGH SCHOOL				
COLLEGE				
TRADE, BUSINESS OR CORRESPONDENCE SCHOOL				

*The Age Discrimination in Employment Act of 1967 prohibits discrimination on the basis of age with respect to individuals who are at least 40 but less than 70 years of age

GENERAL

SUBJECTS OF SPECIAL STUDY OR RESEARCH WORK

U.S. MILITARY OR NAVAL SERVICE

RANK

PRESENT MEMBERSHIP IN NATIONAL GUARD OR RESERVES

(CONTINUED ON OTHER SIDE)

LITHO IN U.S.A.

FORMER EMPLOYERS (LIST BELOW LAST FOUR EMPLOYERS, STARTING WITH LAST ONE FIRST)

DATE MONTH AND YEAR	NAME AND ADDRESS OF EMPLOYER	SALARY	POSITION	REASON FOR LEAVING
FROM				
TO				
FROM				
TO				
FROM				
TO				
FROM				
TO				

REFERENCES: GIVE THE NAMES OF THREE PERSONS NOT RELATED TO YOU, WHOM YOU HAVE KNOWN AT LEAST ONE YEAR

NAME	ADDRESS	BUSINESS	YEARS ACQUAINTED
1			
2			
3			

PHYSICAL RECORD:

DO YOU HAVE ANY PHYSICAL LIMITATIONS THAT PRECLUDE YOU FROM PERFORMING ANY WORK FOR WHICH YOU ARE BEING CONSIDERED? ☐ Yes ☐ No

PLEASE DESCRIBE

IN CASE OF EMERGENCY NOTIFY

NAME ADDRESS PHONE NO

"I CERTIFY THAT THE FACTS CONTAINED IN THIS APPLICATION ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND UNDERSTAND THAT, IF EMPLOYED, FALSIFIED STATEMENTS ON THIS APPLICATION SHALL BE GROUNDS FOR DISMISSAL.

I AUTHORIZE INVESTIGATION OF ALL STATEMENTS CONTAINED HEREIN AND THE REFERENCES LISTED ABOVE TO GIVE YOU ANY AND ALL INFORMATION CONCERNING MY PREVIOUS EMPLOYMENT AND ANY PERTINENT INFORMATION THEY MAY HAVE, PERSONAL OR OTHERWISE, AND RELEASE ALL PARTIES FROM ALL LIABILITY FOR ANY DAMAGE THAT MAY RESULT FROM FURNISHING SAME TO YOU.

I UNDERSTAND AND AGREE THAT, IF HIRED, MY EMPLOYMENT IS FOR NO DEFINITE PERIOD AND MAY, REGARDLESS OF THE DATE OF PAYMENT OF MY WAGES AND SALARY, BE TERMINATED AT ANY TIME WITHOUT ANY PRIOR NOTICE."

DATE SIGNATURE

DO NOT WRITE BELOW THIS LINE

INTERVIEWED BY DATE

HIRED ☐ Yes ☐ No POSITION DEPT

SALARY/WAGE DATE REPORTING TO WORK

APPROVED: 1 2 3

EMPLOYMENT MANAGER DEPT HEAD GENERAL MANAGER

This form has been designed to strictly comply with State and Federal fair employment practice laws prohibiting employment discrimination. This Application for Employment Form is sold for general use throughout the United States. TOPS assumes no responsibility for the inclusion in said form of any questions which, when asked by the Employer of the Job Applicant, may violate State and/or Federal Law.

Test Item 022.2-02

INSTRUCTIONS TO STUDENTS: Read each of the following statements about filling out an application for employment. Determine if each statement is true or false. Record the correct response (true or false) in the blank to the left of each statement.

__________ 1. Most companies request that you complete an application form even if you have submitted a resume.

__________ 2. Before filling out an application form, you should read all of the instructions carefully.

__________ 3. It is not necessary to list the address of your references on the application form.

__________ 4. An employment application is a brief standardized version of your resume.

__________ 5. It is not necessary to complete the "Work History" section of the application form because you will be asked questions about your work history in the interview.

OBJECTIVE 22.3: Develop a resume.

Test Item 022.3-01

INSTRUCTIONS TO STUDENTS: Using appropriate software, develop your personal resume in final form.

Test Item 022.3-02

INSTRUCTIONS TO STUDENTS: Read each of the following statments about a resume. Determine if each statement is true or false. Record the correct response (true or false) in the blank to the left of each statement.

__________ 1. A resume is a written description of the background, skills and abilities you take with you to a job interview.

__________ 2. A resume should not tell what kind of job you want.

__________ 3. There is only one kind of resume, a basic chronological resume.

__________ 4. A resume provides a sample of your best work.

__________ 5. Your resume must be perfect before it leaves your hands to be presented to a prospective employer.

KEY TO TEST ITEMS
FOR
SEEKING EMPLOYMENT

Test Item 022.1-01

1. False
2. False
3. True
4. True
5. False
6. True
7. True
8. False
9. False
10. True
11. False
12. False
13. True
14. False
15. True
16. False

Test Item 022.1-02

1. f
2. c
3. g
4. a
5. b
6. i
7. j
8. h
9. d
10. e

Test Item 022.1-03

1. prepared
2. needs
3. questions
4. salary
5. illegal

Test Item 022.2-01

Checklist:

_____ All spaces are filled in with information, a dash, or N/A.

_____ There are no misspellings, smears, smudges, or factural errors.

_____ Words are neatly printed.

_____ Pen or felt tip was used.

Test Item 022.2-02

1. True
2. True
3. False
4. True
5. False

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Test Item 022.3-01

Checklist

Resume Parts	Information Complete and Accurate	Easy to Read	Spelled Correctly
Name			
Career Goal			
Personal Information (Address and Telephone #)			
Work Experience (Part-time, summer, and Volunteer is applicable)			
Education			
Extracurricular activities			
References or furnished by request statement			

Test Item 022.3-02

1. True
2. False
3. False
4. True
5. True

PARTIAL LISTING OF REFERENCES
FOR
SEEKING EMPLOYMENT

TEXTBOOKS

Golden, Nancy. **Dress Right For Business.** Gregg/McGraw-Hill Publishing Company, 1221 Avenue of the Americas, New York, NY. 10020, 1-800-334-7344. 1986.

Kushner. **How To Find And Apply For A Job.** Southwestern Publishing Company, 5101 Madison Road, Cincinnati, OH. 45227. 1-800-543-7972. 1989.

Madry, Bobbi R., **The Job Seeker's Guide.** MPC Educational Publishers, 3839 White Plains Road, Bronx, NY 10467-5394, 1987.

Rudolph and Johnson. **The Job Hunter's Workbook For High School Students.** Department of High School Instruction, Johnson and Rudolph, Inc., 1004 State Street, Bowling Green, KY 42101, 1-502-781-1915. 1986.

Zedlitz. **Getting A Job.** Southwestern Publishing Company, 5101 Madison Road, Cincinnati, OH. 45227. 1-800-543-7972. 1987.

Zedlitz. **Getting A Job.** (A Special Needs Version). Southwestern Publishing Company, 5101 Madison Road, Cincinnati, OH. 45227. 1-800-543-7972. 1987.

SOFTWARE

Filling Out Job Applications. Career Aids, 20417 Nordhoff Street, Department J, Chatsworth, CA 91311. 1-818-341-4400.

Letter of Applications. and Resume Using A Microcomputer. Southwestern Publishing Company, 5101 Madison Road, Cincinnati, OH. 45227. 1-800-543-7972. 1989.

Resume. McGraw-Hill Publishing Company, 1221 Avenue of the Americas, New York, Ny. 10020. 1-800-334-7344.

Resume Processor. Career Aids, 20417 Nordhoff Street, Department J, Chatsworth, CA. 91311. 1-818-341-2535.

Successful Interviewing. Career Aids, 20417 Nordhoff Street, Department J, Chatsworth, CA. 91311. 1-818-341-2535.

The Cover Letter and **The Creative Resume.** Career Aids, 20417 Nordhoff Street, Department J, Chatsworth, CA. 91311. 1-818-341-2535.

The Micro Art of Job Interviewing and **The Right Job Application.** Career Aids, 20417 Nordhoff Street, Department J, Chatsworth, CA. 91311. 1-818-341-2535.

VISUAL AIDS

Completing and Application and **Developing Your Resume** (Video). Educational Associates, Inc., 8 Crab Orchard Road, PO Box Y, Frankfurt, KY. 40602. 1-800-626-2950.

Planning Your Future and **Writing Your Way Up The Job Ladder** (Videos). Educational Associates, Inc., 8 Crab Orchard Road, PO Box Y, Frankfurt, KY. 40602. 1-800-626-2950.

The Employment Interview.MPC Educational Publishers, 3839 White Plains Road, Bronx, NY. 10467-5394.

Your Appearance I: The Interview and **Your Appearance II: On The Job** (Video). Educational Associates, Inc., 8 Crab Orchard Road, PO Box Y, Frankfurt, KY. 40602. 1-800-626-2950.

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EQUIPMENT AND SUPPLIES

The primary objective of business education is to provide opportunties for students to develop occupational competencies. Therefore, it is necessary that business teachers have state-of-the-art equipment and software to implement Computer Applications I and II.

For more detailed information regarding equipment and supplies, please refer to **Vocational Education Equipment Standards, Revised.** Because of the rapid change in computers and software, it is also suggested that vocational directors and business teachers consult with the Division of Vocational Education/Business and Office Education about equipment and software purchases.

APPENDIX
FACILITIES

The Basic Education Program for North Carolina's Public Schools (February 1988) states the following:

School facilities should provide an adequate environment to support all learning activities, functions and student services which make up the total school curriculum. Some characteristics of good school facilities are:

- Safe-complies with North Carolina Building Codes for fire, health, and safety
- Clean, sanitary
- Adequate heating and ventilating systems
- Adequate air conditioning systems (particularly in Piedmont and coastal North Carolina)
- Adequate lighting
- Good acoustics
- Aesthetically pleasing and conducive to learning
- Accessible to handicapped persons
- Suitable for use by the community
- Flexible in design to allow for change in curriculum demands

Specific school facility standards have been adopted by the State Board of Education. Copies of the standards are available from the Department of Public Instruction.

Sample room layouts are available from the Division of Vocational Education, Business and Office Education.